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ABSTRACT

Data from a variety of sources are used to describe the system of higher education in Brazil. Brazil has put significant resources into developing its system of higher education over the last decade, and a system has developed in which some institutions have achieved recognizable excellence while others struggle to provide relevant, quality education at a reasonable cost. Taken as a whole, the system has a number of problems to overcome. About 15% of the age cohort is enrolled in higher education, a figure that is quite low compared to other countries in the region. Cost per student in public institutions is on a par with countries that are members of the Organization for Economic Cooperation and Development, but educational quality is not, and access to education is limited in many regions. Until recently, federal policy toward higher education did not attempt to control costs or correlate funding to productivity. In general, the quality of instruction and the relevance of the curriculum are below desirable standards. The government has a three-pronged strategy that involves changing the legal framework for the higher education sector, changing the funding system for higher education, and improving the evaluation of performance by the sector and institutions. Many important changes to higher education are underway in Brazil, and the challenge is to focus attention on those that will promote the greatest progress in equitable access, quality, relevance, and efficiency. Six annexes (appendixes) contain reports and essays on Brazilian higher education, and there is an annotated bibliography of 14 sources. (Contains 17 tables, 12 graphs, and 4 boxes.) (SLD)

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A WORLD BANK COUNTRY STUDY

Higher Education in Brazil

Challenges and Options

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Higher Education in Brazil

Challenges and Options

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Washington, D.C.

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[1] It should be noted that the data presented in the Annexes was prepared for the Brazil Higher Education Sector Study, Volume II, published in June 2000 by the World Bank.

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Preface

The Government of Brazil is analyzing options for improving and restructuring higher education over the next two to three decades. At the request of the Minister for Education, Mr. Paulo Renato, the Bank undertook an assessment of the state of higher education and made recommendations on how its purpose, structure, scope, funding and governance could evolve to better meet the needs of the country. The assessment consisted of four phases.

In phase one, analytical work between Minister Paulo Renato, members of the National Education Council, rectors, federal higher education officials, and World Bank staff led to the identification of the major issues facing Brazilian higher education. The following issues were identified: i) *increasing coverage,* ii) *enhancing managerial autonomy and providing incentives for efficiency at the institutional level*; iii) *the changing role of the Federal Government;* iv) *improving quality of instruction,* and v) *identifying and garnering support from stakeholders.*

In phase two, several expert policy analysts were commissioned to produce a series of background papers which served as the basis for discussion at a policy workshop held in December 1998 in Lansdowne, Virginia. Six of the background papers, in their entirety, comprise the contents of Part II[2] of this study.

A three-day Policy Workshop, from December 10-12, 1998 in Lansdowne, Virginia, was the third phase of the assessment. The workshop brought together a delegation, led by the Minister of Education, of selected high-level Brazilian policy makers, a panel of international policy experts, and Bank staff. The main objective of participants was to launch a dialogue for fundamental and long-term change, based on a balanced and realistic assessment of where Brazilian higher education should be heading.

Phase four was the production of Part I of an earlier version of this study, "Higher Education in Brazil: Challenges and Options", which discusses the ways in which Brazil might address the main issues identified and prepare the higher education sector for the 21st century. The first section of Part I describes *the system*. The second section provides an *economic perspective* by examining the issues of external efficiency, internal efficiency, and equity with reference to possible developments in student aid and other measures to promote wider access to higher education. The third and final section contains *policy recommendations*. It should be noted that these are recommendations and not confirmed government policies.

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[2] Portuguese versions are available through the World Bank regional office in Brasilia. The papers may also be accessed, both in English and Portuguese, on the Worldwide Web at www.worldbank.org.

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Abbreviations and Acronyms

ABMES	*Associação Brasileira de Mantenedoras do Ensino Superior*
ABRUC	*Associação Brasileira das Universidades Comunitárias*
ANDIFES	*Associação Nacional de Instituições Federais de Ensino Superior*
ANUPES	*Associação das Universidades Particulares*
CAPES	*Coordenadoria de Aperfeiçomento de Pessoal de Ensino Superior*
CAUT	*Committee for the Advancement of Undergraduate Teaching*
CEF	*Caixa Econômica Federal*
CES	*Censo de Ensino Superior*
CFE	*Federal Council of Education*
CIHE	*Council for Industry and Higher Education*
CNE	*Conselho Nacional de Educação*/National Education Council
CPGE	*Cours Préparatoires aux Grandes Ecoles*
CQAEHE	*Centre for Quality Assurance and Evaluation of Higher Education*
CRUB	*Conselho de Reitores das Universidades Brasileiras*
ENC/*Provão*	*Exame Nacional dos Cursos*/ National Exam of Courses
GDP	Gross Domestic Product
GRE	Graduate Record Examination
GSP	Graduate Standards Project
HEFCE	Higher Education Funding Council for England
HEI	Higher Education Institutions
IALS	International Adult Literacy Survey
IBGE	*Instituto Brasileiro de Geografia e Estatística*
INEP	*Instituto Nacional de Estudos e Pesquisas Educacionais*
IUT	*Instituts Universitaires de Technologies*
LDB	*Lei de Diretrizes e Bases de Educação*/The National Law of Education
MEC	*Ministério da Educação e do Esporto*
MS	Minimum Wage Salaries (Monthly)
OAB	*Ordem dos Advogados do Brasil*
OECD	Organization of Economic Cooperation and Development
PAIUB	Program of Institutional Evaluation of Brazilian Universities
PCE	*Programas de Crédito Educativo*
PME	*Pesquisa Mensal de Emprego*/Monthly Labor Market Data
PNAD	*Pesquisa Nacional de Amostra de Domicílios*
PROEDE	*Programa de Estudos e Documentação Educação e Sociedade*
PUC	*Pontifica Universidade Católica*
QAA	Quality Assurance Agency
RJU	*Regime Jurídico Único*
SBPC	*Sociedade Brasileira para o Progresso da Ciência*
SESU	*Secretaria de Ensino Superior*/National Council for Education
SREB	Southern Regional Education Board
STS	*Sections de Techniciens Supérieurs*
UNB	National University of Brazil
UNESCO	UN Educational, Scientific, and Cultural Organization

Currency Equivalents

Currency Unit = Real, R$ 1.78 = US$ 1.00 (Exchange Rate Effective: June 30, 1999)

Fiscal Year	**Academic Year (AY)**	**Weights and Measures**
January 1 - December 31	March - December	Metric system

Executive Summary

Brazil has put significant resources into developing its higher education system over the past three decades. As a result, a system has evolved in which some institutions have achieved recognizable excellence in teaching and research, while, more generally, the majority of institutions have struggled to provide relevant, quality education at reasonable cost. Looked at in isolation, certain parts of the system are sound and productive. Taken as a whole, the system still has a number of large challenges to overcome.

About 15% of the age cohort is enrolled in higher education. This is quite low compared to other countries in the region (Argentina 36%; Chile 32%; Uruguay 30%; Venezuela, R.B. 29% [World Development Indicators 2001]) and to the OECD country average of 52% (OECD, 2001). Simply doubling the number of spaces offered, however, will not double the rate of coverage, because a demographic bulge of young Brazilians is reaching university age. Over the past 15 years, growth in private provision of higher education was roughly equal to the moderate growth of the university-age cohort, but now large absolute increases in enrollments would be needed simply to maintain the current rate of coverage. In addition, graduation rates from secondary schools are rising sharply and more older, working Brazilians are seeking tertiary degrees. In short, a larger percentage of a growing number of Brazilians are demanding higher education, and the system cannot keep pace with this demand under existing conditions.

Cost per student in public institutions, roughly R$14,000 per year in the federal system[3], is on par with OECD country averages while quality is not. Rigidities in funding and regulation create strong disincentives for cost-efficiency or quality. Public universities have been funded on the basis of input. Federal policy toward higher education, until recently, did not attempt to control costs or correlate funding to productivity. Other legislation and regulations, outside the control or influence of MEC, created built-in cost increases that did not improve the access, quality, or relevance of the education. University rectors have traditionally concerned themselves more with obtaining resources from the federal government than with managing the resources effectively within their institutions.

With a few notable exceptions, the quality of instruction and the relevance of the curriculum are below desirable standards. Historically, the Brazilian system - like those of continental Europe - is oriented to provide professional training rather than general or interdisciplinary education. Holders of a first university degree (graduação) are licensed to practice their profession by virtue of their diplomas. Such systems have been

[3] Brazilian higher education is largely a non-tradable service, the cost of which is not significantly affected by the price of higher education in other countries. Therefore, stating the costs in terms of other, more stable currencies can be misleading because of fluctuations in Brazil's exchange rate. When the Real was "overvalued", the costs appeared exorbitant. After the recent devaluation, a comparison in dollar terms would falsely show a 40% cost decrease from 1998 to 1999. Costs are best measured by comparison to domestic prices (such as percentage of average starting salary of a graduate, or the cost of a car, a home, or some other basket of goods). Such a comparison shows that the cost of public higher education is at least as great as in OECD countries.

successful, productive, and of high quality under a variety of conditions. However, in Brazil, thanks largely to restrictive labor market regulation, the influence of professional associations in setting the curricula and the numbers of courses/places have served to limit the supply of professional labor, rather than to satisfy the demands of the labor market. Furthermore, in the Brazilian public system, a lack of coherence in research, teaching, and career advancement policies in public institutions has often led to a concentration of professors doing specialized research at the expense of undergraduate teaching. By contrast, many private institutions are driven by profit, and therefore do not undertake any research or pay salaries necessary to attract and retain high-quality professors.

The public system, which includes many, but not all of the country's finest institutions, provides higher quality education than the private sector, charges no tuition, and limits the number of places. Competition for admittance is fierce, and wealthy students do best because they can afford elite private high schools and special preparation courses for the entrance exams. Estimates on enrollment by income quintile show that two thirds of students are from the highest income quintile, while only about 5% are from the two lowest. It is a generally recognized problem that students from lower and lower middle class backgrounds have greater difficulty gaining entrance to the free, public system. If these individuals study at all, they are more likely to be in the private system, where they must pay tuition. Some financial assistance is available from the government and the institutions themselves, but it does not sufficiently address the needs of the students in the system, and much less the potential students who are excluded due to inability to pay.

In 1996, seventy-eight percent of higher education institutions (which represented 74% of total enrollment) were in the South and Southeast regions of the country. The highest quality institutions are also mainly concentrated in these regions. In cities like São Paulo, there are currently more offered places than enrolled students. In most of the rest of the country, the situation is the opposite.

The Government of Brazil has a three-pronged strategy for improving higher education: (i) to change the legal framework for the sector; (ii) to change to a performance-based funding system that supports MEC's policy goals of improved access, quality, and efficiency; and (iii) to improve capacity for evaluating quality of instruction and performance of institutions. To date, substantial progress has been made in points (i) and (iii), and planning for (ii) is underway.

(i) The Legal Framework. Prior to 1994, higher education institutions were not allowed to define curricula or personnel policies. They could not hire or fire academic, technical, or administrative staff, set salaries, open new courses of study, decide the number of places they would offer, or transfer budget resources among expenditure categories. The Government's National Education Law (Law 9.394/1996) created a new category of institutions, the "university centers", which enjoy most of the same legal privileges as universities, have greater autonomy over curricula and enrollments, and

have a mandate to concentrate on undergraduate teaching instead of research. The law also allows universities to define their own personnel policies, to hire and fire staff directly, and to manage budgets according to the needs of the institution, rather than centralized bureaucratic mandates. The law also creates the framework for a national evaluation system, through which the federal government can monitor and guarantee the quality of higher education. Other legislative changes have allowed for the creation of new, shorter courses which are similar in some respects to the community college degree programs of the US, and two-year professional Master's degrees for areas of high demand, like business administration and economics. The new legislation also permits much greater autonomy for institutions to determine the type and amounts of education they offer. The previous, restrictive "minimum curriculum" for each course or career is no longer legally mandated. Institutions are now only required to follow broad curriculum guidelines.[4]

Implementation of the changes that these laws make possible has been slowed because of existing contravening legislation, and by resistance to autonomy and inertia within universities themselves. Presently, all university employees are civil servants, contracted under the Unified Legal Regime (Regime Juridico Unico: RJU). The RJU employees are virtually impossible to fire - regardless of job performance - and their salaries are collectively negotiated. However, reform of the Brazilian public service will greatly narrow the jobs that can be defined as RJU, so that only positions like ambassadorships, or similar career public service positions, will qualify. New employees of public higher education institutions will no longer qualify for RJU status. Rather, they will be contracted by the institutions themselves under terms that the institutions determine. It should be noted that the two employment regimes will co-exist for a period, until all RJU employees leave through attrition or retirement, or voluntarily transfer to the new system.

(ii) Changes to the Funding System for Higher Education. The Government, in granting institutions greater autonomy, requires that institutions be accountable to their stakeholders. To ensure autonomy with accountability the Government of Brazil is making two fundamental changes to the way it funds higher education. For the federal institutions, it would provide block grants, on the basis of performance contracts. The allocation for each institution would be derived using a simple, transparent formula. The formula would reward the "behavioral changes" and improved productivity that would lead to MEC's policy goals of greater access, quality, and efficiency. For the private system, it would provide loans targeted to students who could not otherwise afford to pay tuition. Students will be able to use their loans only at private institutions, which have demonstrated that they produce students proficient in their subject areas as shown by data collected from recent *Provão* outcomes.

[4] The new guidelines have been developed through a consultative process with the academic community. They place a much greater emphasis on defining the knowledge and competencies that a graduate should possess, and much less on prescribing a mandatory, detailed curriculum for each discipline.

(iii) Improved Evaluation of Performance. An integral part of MEC's strategy is to transform its role from that of a funder of inputs to that of a guarantor of a minimal standard of quality for output. A main instrument for this is its evaluation and accreditation system. Brazil has a long and successful experience with evaluation and accreditation of graduate courses by CAPES. In this system, courses are graded by several criteria, and those that do not meet minimum quality standards after a probationary period are denied public funding and lose their accreditation. The CAPES system has been recently revised to increase the relevance and quality criteria. MECs undergraduate accreditation system has grown out of the CAPES experience and will further ensure that with autonomy comes accountability.

Currently, MEC has four mechanisms for the evaluation of undergraduate education, which together provide increased information to potential students about the quality of the education offered:

- Re-accreditation. Under the national education law, courses are now required to undergo periodic re-accreditation (every three years). SESU provides input to the National Council for Education Committee for Higher Education, which recommends renewal, suspension or accreditation for each course. MEC may impose conditional re-accreditation where warranted.

- The *Provão*. The National Exam of Courses or *Provão* tests the achievement of all graduating students in the 13 most widely followed career courses (administration, law, engineering, medicine, etc.). Students are only required to take the exam, they are not judged on their individual performance. The average score of student's from each institution, however, is published as a proxy indicator of the quality of instruction in that course. The *Provão* has been given annually since 1996, and each year it has added new courses. It has already had an impact in two ways. First, it has help to create a culture of performance evaluation within universities. Student and faculty initially resisted this type of measurement, but that resistance has decreased with time. Second, it has changed public perceptions about the quality of institutions. Some well-funded public universities have seen their prestige diminish because of low scores. Private universities that score well are seeing their applications increase, while low scoring schools are finding it more difficult to attract students.

- Institutional Evaluation. In 1997, MEC/SESU began its Program of Institutional Evaluation of Brazilian Universities (*PAIUB*). Under the program, committees of peers are selected by SESU to make site visits to higher education institutions to evaluate the qualifications of the staff, the organization of instruction and the curricula, and the adequacy of the support infrastructure (libraries, laboratories, etc.) for the courses offered. Courses are given a "grade" for each category, and the results are published. In its first year of operation, 810 courses were evaluated.

- The Higher Education Census. The National Institute for Education Research (INEP) has been conducting a nation-wide survey of higher education institutions for the past several decades. The survey collects data on several aspects of the higher education system.

As part of its strategy, MEC has been building political support for this reform among key stakeholders. It continues to hold frequent consultations with legislators, university administration officials, representatives of faculty and students, and other agencies and levels of government with responsibilities related to higher education.

The World Bank has been an active partner in this strategy since June 1998. Innovative ESW for the sector was undertaken during the first half of FY99. The culmination of these activities was a policy workshop (December 10-12, 1998 in Lansdowne, Va.,) at which Minister Paulo Renato and a delegation of Brazilian higher education policy makers worked for three days with a team of top international experts and Bank staff to define a vision for Brazilian higher education into the 21st century. The event was in response to a request made in the second quarter of 1998 for technical assistance. In the months prior to the workshop, background assessments were conducted by the Bank team and a series of policy papers were commissioned from relevant experts. This work brought into focus the main issues that Brazil must address to achieve the progress it seeks in the sector. These issues formed the basis for discussion and became the core of the consensus on directions for policy that Minister Renato articulated at the conclusion of the workshop.

Clearly, many important changes are underway within the system. The challenge is to focus attention on those that will promote the greatest progress in equitable access, quality, relevance, and efficiency. With this in mind, it is recommended that MEC take the following steps. First, with respect to access: (a) the trend towards diversification through new instruments, such as sequential courses, and new institutional definitions (such as university centers) should continue; (b) the amount of targeted financial assistance for poor students should be increased; and (c) five and ten year enrollment increase targets should be identified, and progress toward improved coverage should be monitored closely. Additionally, the Government of Brazil has several policy options for increasing access to tertiary education that it may consider in the future. These include: i) increasing government and private funding of public institutions; in light of the current economic situation in Brazil, and the government's relatively high spending for higher education, it is unlikely that a large infusion of public funds for higher education is forthcoming. However, the addition of private resources could lead to an increased supply of places to the extent that the additional resources are used to educate and train students rather than to pay for administrative costs or research; ii) reducing costs per student at public institutions could be achieved in any number of ways and is best dealt with at the institutional level; and iii) charging tuition at public universities. This option is being used increasingly around the world as a means to maintain or increase institutional budgets. When combined with well thought out student aid schemes, this could have a

positive impact on equity access. Further discussion of possible strategies to expand access in Brazilian tertiary education can be found in Part II, Annex Six.

With respect to quality, it will be important to ensure that the *Provão*, which has achieved major success in a short time, remains a flexible tool. The *Provão* should change with the changing needs of curriculum development, and ways of measuring the new competencies that are being included in the new curricula should be constructed. Also, institutions should more actively promote internal quality assurance mechanisms, in recognition that ultimately, responsibility for quality lies within, and cannot be mandated from outside. Relevance will improve with the new, more flexible course guidelines that have been developed, but should be further enhanced by new administrative mechanisms (e.g., transfer of credits, broader recognition of work outside the defined discipline). A dialogue on institutional relevance should be underway, in which the role of regional and local connections is considered, as is the institutional vocation regarding questions such as teaching versus research.

Last, efficiency should be augmented, mostly through autonomy of administrative decision-making under proper incentives. Reform of the existing civil service legislation is, without a doubt, a key aspect of this issue. But other critical components will include providing more fungible funding (by means of block grants), providing a greater flexibility for institution to generate resources, and strengthening longer-term strategic management within the institutions.

Part I

Higher Education in Brazil: Characteristics and Challenges

Until recently, the dominant characteristic of higher education in Brazil has been its stasis. With an average of only 1.6 million enrolled students since the early 1980s - less than 10 percent of the available age cohort - Brazilian institutions of higher learning have failed to keep pace with the country's growing demand for an educated work force. The inability of Brazil's secondary schools to produce a sufficient number of qualified university candidates is the primary reason for this stasis. Today, however, reforms in basic and secondary education are being implemented to ameliorate this dilemma, and the number of students passing through the education system is increasing rapidly. In the next several years, the impact of these changes on higher education will be very substantial and the system needs to be ready to receive and educate the large number of students who will be demanding access to tertiary education.

Contrary to the rest of Latin America, Brazilian public universities remained selective during earlier periods of expansion in the 1960s and 1970s. Last year, Brazil spent about $5.4 billion on its federal universities, approximately $13,500 per student. Although public universities are free for students, quality is very uneven, teaching loads are light, only a small percentage of the faculty have adequate academic credentials, and there are no incentives for improving quality, getting rid of incompetent professors, and increasing enrollments. Private institutions, on the other hand, expanded very quickly in the 1960s and 1970s, filling the gaps left by the public sector. Today, about two-thirds of Brazil's higher education students are in private institutions. Very heterogeneous in type, these private-sector schools include confessional institutions like the Catholic universities; community universities sponsored by local governments, businessmen and voluntary organizations; and diploma mills.

Source: Simon Schwartzman. 1997. "Higher Education in Brazil: First Moves". International Higher Education. Boston College, Boston.

Section One: The Current Status of the System

The Institutions

In 1999, there were 1,097 institutions, 60 of which were federal, 72 state, 60 municipal, and 905 private (see Table 1). Classified by education mission, there are essentially four types of institutions:

> i) universities, which carry out the traditional missions of teaching and research at the graduate and undergraduate levels;
> ii) university centers, tertiary institutions, whose main mission is teaching;
> iii) multiple faculty facilities, known as *federações e integradas*, non-university institutions, which offer programs in more than one knowledge area, such as social sciences and technology;
> iv) single faculty facilities, or *instituições isoladas*, non-universities, which offer programs in only one knowledge area, such as social sciences.[1]

This official count of institutions in reality overstates the number because each isolated institution is counted as a single institution, when in fact it is not uncommon for several isolated facilities to be under the control of a single governing board, and thus indistinguishable from a multiple faculty facility. These different categories of institutions are each regulated differently (see the section below on the Legal Framework).

[1] As of 1999, the higher education statistics of the Instituto Nacional de Estudos e Pesquisas Educacionais (INEP) lists a new type of institution, the *centros de educação tecnológica*.

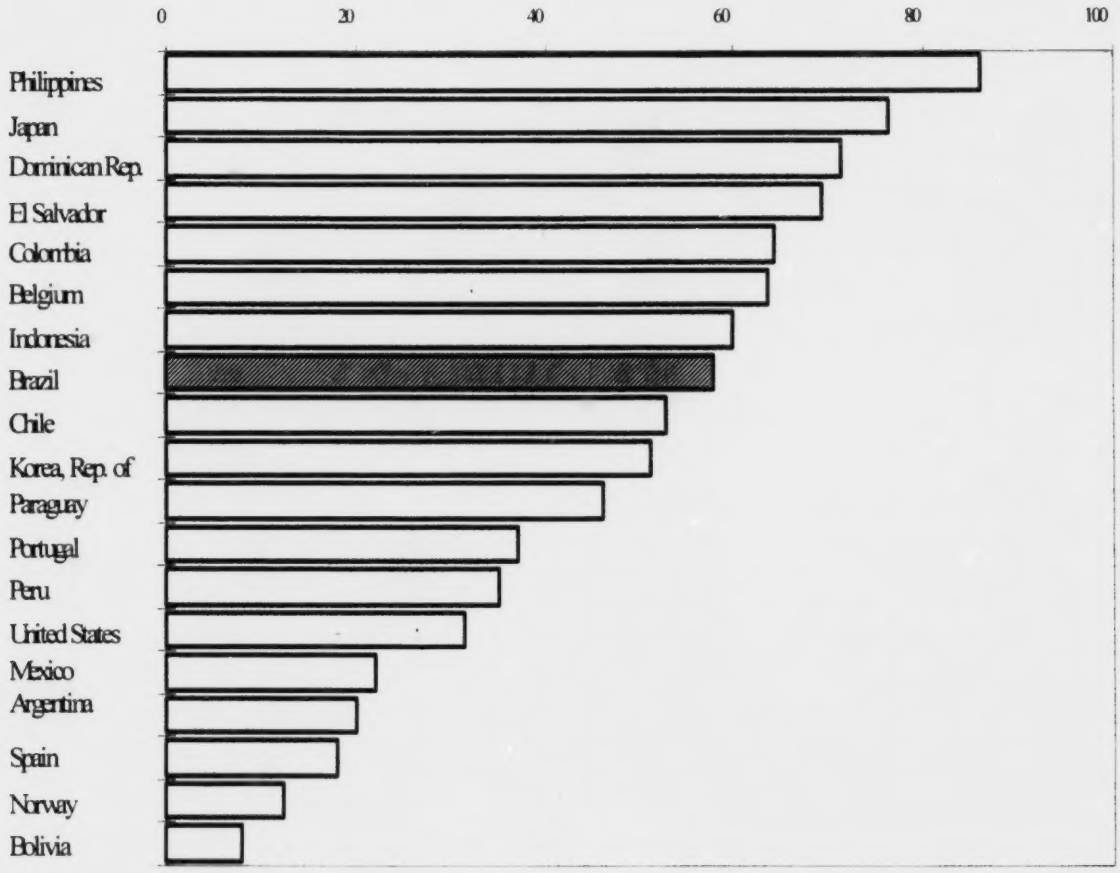
Table 1. Tertiary Education Institutions in Brazil, by Type, 1999 (% of Total Tertiary Enrollment)

Type of Institution	*Number*	*Enrollment*	*% Total Enrollment*	*Graduates (1998)*
Universities	**155**	**1,619,734**	**68**	**195,040**
Federal	39	421,353	18	50,906
State	30	264,938	11	35,701
Municipal	3	38,891	2	5,177
Private	83	894,552	38	103,256
Non-University-Multiple Faculty	**113**	**277,588**	**12**	**39,632**
Public	2	3,652	0.2	542
Private	111	273,936	12	39,090
Non-University Single Faculty	**813**	**453,139**	**19**	**64,087**
Public	102	83,704	4	11,032
Private	711	369,435	16	53,055
Centers for Technology Education	**16**	**19,484**	**1**	**2,002**
Public	16	19,484	1	2,002
Private	--	--	--	--
Total	**1,097**	**2,369,945**		**300,761**

Source: MEC/INEP/SEEC 2000

In 1999, the public sector enrolled over 830,000 students (35% of total enrollment). The federal universities account for half of all public enrollment and approximately one-fifth of the total enrollment. The state and municipal systems together account for an additional one-fifth. The private sector, as seen in Graph 1 below, accounts for 65% of total enrollment—over 1.5 million students.

Graph 1. Enrollment in Private Higher Education (as a % of Total)



Source: World Bank data.

Private enrollment is split with 58% for universities and 42% for non-universities. University enrollment has more than doubled from 1980 to 1999 (from 652,000 to 1.6 million), but overall enrollment at the tertiary level is up by only 39% (from roughly 1.4 to 2.3 million) for the same period. Also between 1980 to 1997, the size of the age cohort grew by about 37%, so the rate of coverage remained constant at about ten percent of the 18- to 24-year-old cohort. As Tables 2 and 3 below show, this compares unfavorably with several Latin American countries as well as with a wider range of OECD countries.

Table 2. Growth of Coverage in Tertiary Education: Latin America (1999)

Country	% of Age Cohort in Tertiary Education 1980	1997	% Increase in Coverage, 1980-1997
Brazil	11	15	36
Argentina	22	36	64
Chile	12	32	167
Colombia	9	17	18
Costa Rica	21	30	43
Mexico	14	16	14
Peru	17	26	53
Uruguay	17	30	77
Venezuela, R.B.	21	29	38

Source: UNESCO data (1999) as reported in World Development Indicators 2001.

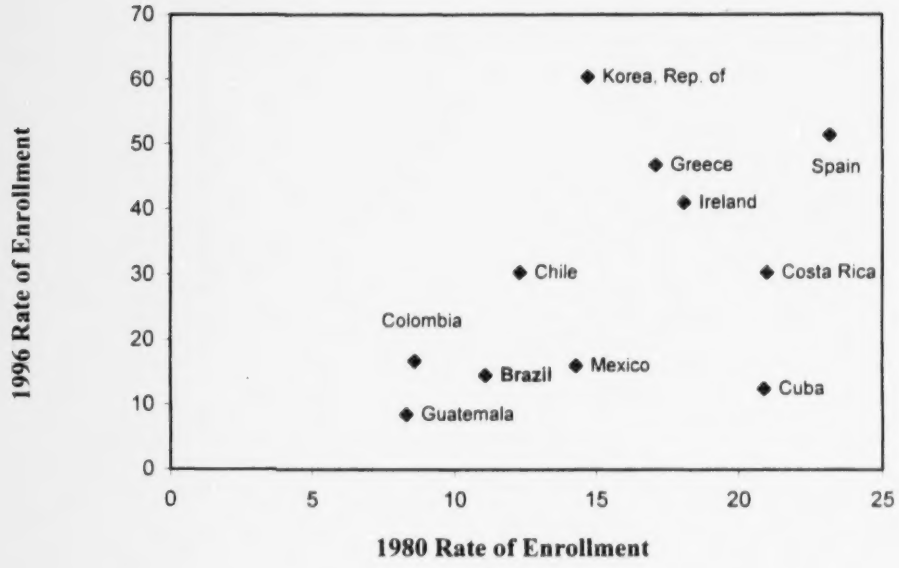
Table 3. Growth of Coverage in Tertiary Education: OECD Countries (1999)

Country	% of Age Cohort in Tertiary Education 1980	1997	% Increase in Coverage, 1980-1997
Finland	32	74	131
France	25	51	104
Ireland	18	41	128
Italy	27	47	74
Korea, Rep. of	15	68	353
The Netherlands	29	47	62
New Zealand	27	63	133
Norway	26	62	139
Portugal	11	39	255
Spain	21	51	143
Turkey	5	21	320
United Kingdom	19	52	174
United States	56	81	47

Source: UNESCO data (1999) as reported in World Development Indicators 2001.

The stagnant growth of Brazilian higher education is even more dramatic when viewed in Graph 2. Only two other countries, Guatemala and Mexico, show a similar pattern over that same time period. Cuba has shown a decline in enrollments.

Graph 2. Coverage: Gross Enrollment Rate (1980-1996)



Source: UNESCO World Education Indicators 2001.

Enrollment is split almost evenly between institutions located in state capitals and those located in the interior. The federal universities are spread throughout national territory, but the other tertiary institutions are overwhelmingly located in the South or Southeast (approximately 78% of all institutions, representing 74% of total enrollment). Between 1980 and 1999 the number of universities grew 139 percent, from 65 to 155, while the overall number of higher education institutions grew by only 24 percent (from 882 to 1,097). Among the public universities, the number of state universities tripled (from 9 to 30), the number of federal universities increased only slightly (from 34 to 39), and the number of municipal universities increased until 1998 (from 2 to 8), but decreased in 1999 (to only 3). Private universities grew in number from 44 to 83. The large increases are probably due to the advantages of having university status, notably, less government regulation. This has moved many multiple and isolated facilities to successfully lobby for conversion to university status.

Private tertiary institutions range from top-quality universities engaged in research and teaching, such as PUC Rio and PUC São Paulo, to single facility institutions. Of the 905 private institutions, 9 percent (83 institutions) are universities with the vast majority (79%) falling in the category of single or isolated facilities. "Community universities", which include the pontifical institutions, began emerging as an identifiable group among the privates in the mid-1980's. These institutions have a reputation for good quality and for taking their mission of service, especially to local communities, very seriously. Community universities probably most closely approximate the American concept of a

private university. Many private institutions are for-profit organizations, known as entrepreneurial institutions. While the National Education Law now officially recognizes for-profit institutions, inclusion in this category means the loss of tax-exempt status, resulting in very few entrepreneurial institutions categorized in this way.

Except in the federal universities, consistently high enrollment in night courses has been a feature of Brazilian higher education (see Table 4 below). On average, night students make up 55 percent of total enrollments. If the federal system (where night students account for only 19% of enrollment) is eliminated, however roughly four-fifths of the remaining enrollment is in night courses.

Table 4. Total Enrollment, Enrollment in Night Classes and the Percent of Students Enrolled in Night Courses, by Type of Institution (1999)

Type of Institution	1991	1998		
Type of Institution	**%**	**Total**	**Night**	**%**
University	**37.8**	**1,467,888**	**673,764**	**45.9**
Federal	15.0	392,873	75,507	19.2
State	37.6	239,908	101,974	42.5
Municipal	71.1	67,758	45,894	67.7
Private	54.5	767,349	450,389	58.7
Non-University Multiple Faculty	**77.3**	**216,137**	**166,397**	**77.0**
Municipal	94.0	--	--	--
Private	76.6	216,137	166,397	77.0
Non-University Single Faculty	**75.1**	**441,933**	**335,206**	**75.8**
Federal	29.9	15,767	6,777	43.0
State	74.6	35,026	24,755	70.7
Municipal	82.1	53,397	43,429	81.3
Private	76.0	337,743	260,245	77.1
Total	**55.1**	**2,125,958**	**1,175,367**	**55.3**

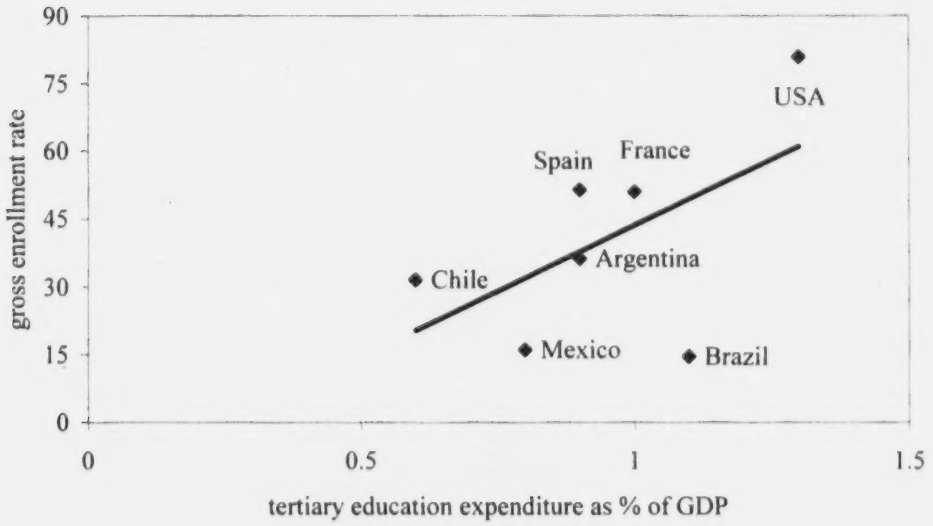
Source: MEC/INEP/SEEC 2000.

In institutions where night courses predominate, course offerings tend to concentrate on "softer" disciplines or professionally orientated degree programs such as computer science, teacher training and other emerging technological fields. Most courses in these institutions do not require expensive laboratory equipment, so hard sciences are under represented. Sixty-eight percent of the private institutions are in the Southeast region, with an especially heavy concentration in São Paulo and Rio de Janeiro. The entire budget of these institutions usually comes from tuition, with a small percentage of tuition (10%) arriving in the form of student loans (see Section Two, "Economic Issues and Perspectives" for more in-depth discussion of this topic). A slightly higher percentage of students in the private system drop out or fail to earn degrees, probably due to the fact that many are older and already working. Full-time faculty is the exception; most instructors are paid an hourly wage according to the number of classes taught. However, in an attempt to improve quality at these institutions, recent legislation was passed issuing

guidelines, which require institutions seeking legal status as universities to have at least one-third of their faculty hired as full time employees. Rough estimates of annual cost per student (R$3,500) is only about one-fourth the cost at the federal universities. Laws designed to prevent private institutions from operating for profit are easily evaded.

With the exception of a small student loan program that subsidizes private education, all federal spending for higher education goes to the federal university system. The system's budget is about R$ 6.5 billion per year, with the latest 1997 MEC estimated per-student cost at R$ 14,500. In 1997/98, about 23 percent of all public spending on education (1.3 percent of GDP) were allocated to higher education, although higher education constituted only 2 percent of total enrollment in education. Graph 3, which compares a country's expenditure as a percent of GDP with its gross enrollment rate, demonstrates how much Brazil deviates from international norms.

Graph 3. Efficiency: Percent GDP and Gross Enrollment Rate



Sources: UNESCO Statistical Yearbook 1999; Education at a Glance: OECD Indicators 2001.

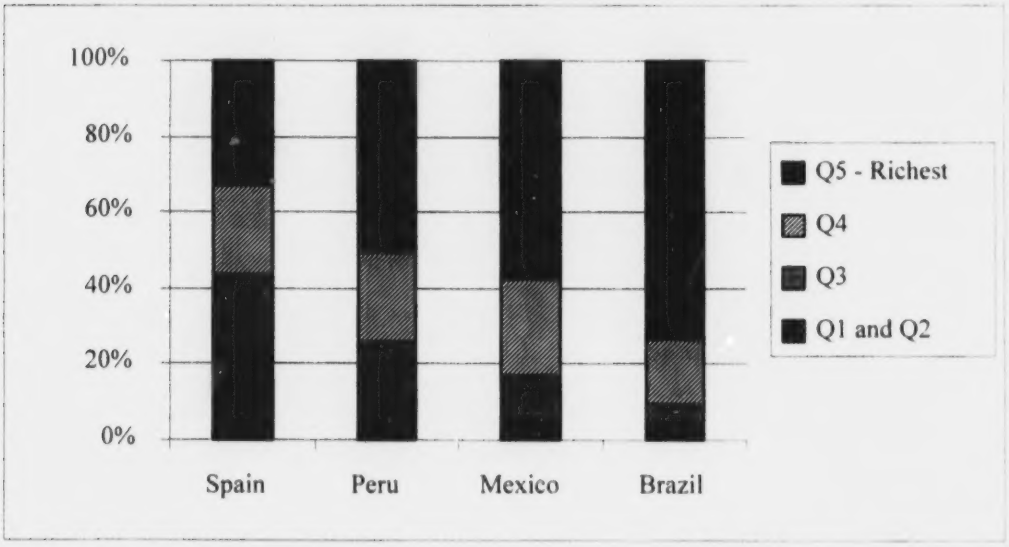
Individuals and the private sector spent an additional 0.4 percent of GDP on higher education. In 1997, all education absorbed 15.3 percent of all public spending, with 3.9 percent of all spending for higher education. Public universities (federal, state, and municipal) do not charge tuition. The vast majority of cost for the federal universities is salaries. These account for an estimated 95 percent of all expenditure and are either paid directly by the federal government through the civil service system or are tied to employee benefits.

The Students

The socio-economic profile of 1997 graduates shows that about 80% were between the ages of 20-29, and 58% were men. Most worked at least part time, and the majority lived

with their parents or families while studying. There are large differences in terms of access to education by lower income groups. In Brazil, 66 percent of all students come from the top income quintile, and, about 33 percent of all students come from the bottom income quintile. This is very different from Spain where about 35 percent of all students come from the top income quintile. In Brazil, only about 100,000 students, or about five percent of the net enrollment, come from the bottom two quintiles. The situation is similar in Mexico, but different from Spain and Peru (Graph 4).

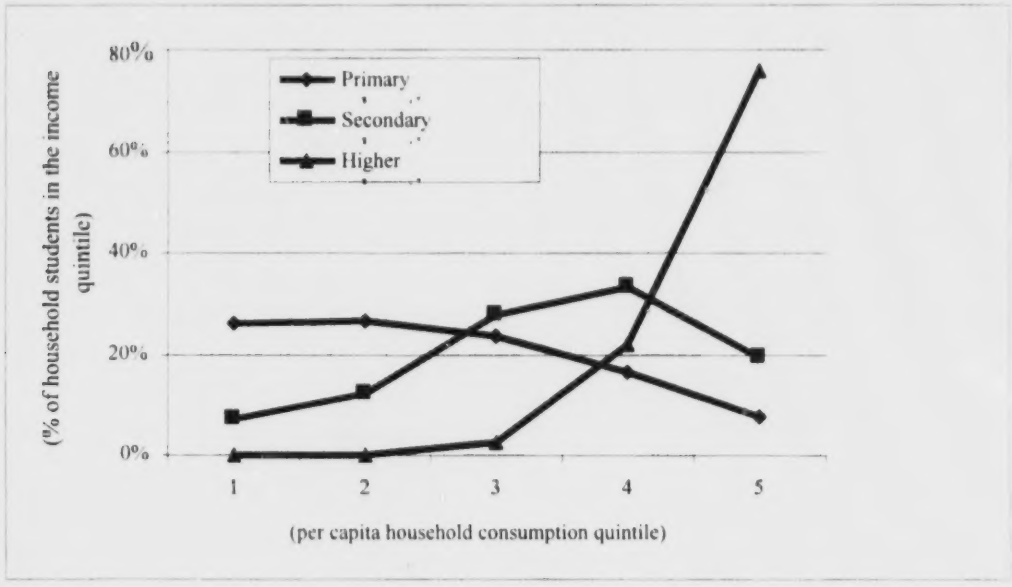
Graph 4. Equity: Enrollment of 18 to 24 Year-Olds in Higher Education by Income Quintile



Source: World Bank data

Graph 5 shows the distribution of students enrolled in each level of education across income quintiles:

Graph 5. Equity: Distribution of Enrollments by Income Quintile



Source: World Bank data

In Brazil, slightly higher proportions of primary education enrollments are found in the lower quintiles. The opposite is true for secondary education enrollments, and at the higher education level, almost all the enrollments are concentrated in the top two quintiles. This general picture is true across most countries; higher income groups are more likely to send their children to good private schools that will qualify them for university entrance and they also have the ability to pay for expensive higher education. However, in very few countries is the distribution as skewed as in Brazil.

Terminal efficiency for the system as a whole, between 1990 and 1997, was 54 percent. Approximately 3.7 million new students entered tertiary institutions and 1.99 million graduated. This is low by most standards, but there is reason to suspect the figures overstate the actual rate of drop out. A study of university dropouts in Paraná found that 75% had actually transferred to other programs and would eventually complete their degrees. Anecdotal evidence claims that many students enroll in multiple programs initially, and, during their course of study, decide to drop one, thus falsely elevating the drop out rate. Survival rates are roughly the same as in Portugal and Turkey, but are significantly lower than those in the Czech Republic, Hungary, and Mexico.

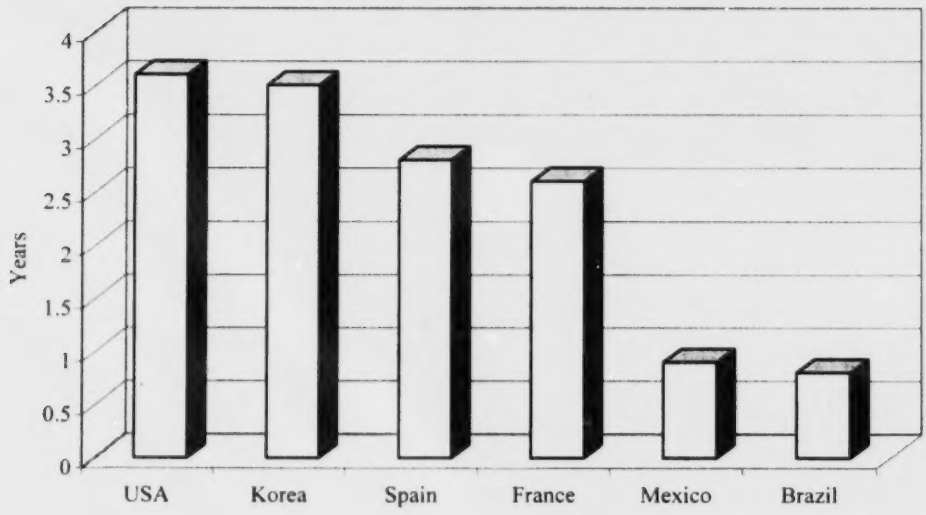
Table 5. Rates of Survival and Dropout in University-Based Education

Country	Reference Year	Survival Rate	Drop-Out Rate
Czech Republic	1995	79	21
Hungary	1996	81	9
Mexico	1996	68	32
Portugal	1993	49	51
Turkey	1995	55	45
Brazil	1997	54	NA

Source: Wagner, 1998.

Extrapolations from demographic data show that absolute increases in tertiary enrollment are scarcely keeping pace with the growth of the age cohort. From 1980 to 1997, coverage of the 18- to 24-year age cohort barely increased from 11 percent to 12 percent. By 2001, coverage had grown to 15%, which shows an improvement over the slow growth of the past two decades, but it is still below the regional average. The system is slow to respond to the need for increased tertiary enrollment, which comes from higher secondary graduation rates and pressures from the labor market. Differences in higher education enrollment rates translate into differences in the educational attainment of the labor force. Based on OECD calculations, it is estimated that Brazilian 17-year-olds are expected to receive, on average, a little more than one-half year of higher education, while in Spain and France, they will receive three times that much, and in the United States and the Republic of Korea, they will receive over four times that much (Graph 6). This puts Brazil at a great disadvantage in the global marketplace.

Graph 6. Global Context: Expected Years of Tertiary Education for all 17-Year-Olds (1999)



Source: Education at a Glance: OECD Indicators 2001.

The Vestibular System and Competition for Admission: University candidates compete for places through competitive entrance exams known as the *vestibular*. Universities or consortia of universities design and administer their own exams for various fields of study, under very general guidance from the National Education Council (*Conselho Nacional de Educação-CNE*). Requirements for different departments and programs of study vary, but students generally take exams in 3-5 subjects. High school graduates may take the *vestibular* immediately after graduation, but many take up to a year to prepare, often in expensive, private preparation courses. The number of places offered through the *vestibular* system has been growing at about a 10 percent per annum, but the number of entrance exams taken is growing faster.

Table 6. Total Number of *Vestibulars* Taken, Total Places Available and the Ratio of Admissions Offered to New Enrollments, Selected Years 1980 – 1999

Year	# *Vestibulars* Taken	# Places	*Vestibular*/ Admissions	Students Enrolled	Admissions/ Enrollees
1980	1,803,567	404,814	4.5	356,667	1.16
1985	1,514,341	430,482	3.5	346,380	1.24
1990	1,905,498	502,784	3.8	407,148	1.17
1995	2,653,853	610,355	4.3	510,377	1.21
1996	2,548,077	634,236	4.0	513,842	1.23
1997	2,711,776	699,198	3.9	573,900	1.22
1998	2,858,016	776,031	3.7	651,353	1.19
1999	3,354,790	904,634	3.7	750,168	1.20

Source: MEC/INEP/SEEC 2000.

In 1998, roughly 1.5 million students completed high school, and 2.8 million *vestibular* exams were taken. About 750,000 students gained admission to universities, less than one for every four exams taken. Tables 6 and 7 seem to indicate again that while the absolute number of places available and the number of students enrolled both continue to increase, there has been no relative expansion of the system over the last nine years. No data were available on the average number of exams each candidate takes, so it is not clear whether these figures represent a large pool of candidates seeking admission, more applications per candidate, or a mixture of the two. What is obvious is that over 1.9 million *vestibular* exams taken each year since 1990 does not lead to enrollment. The most likely explanation—supported by interviews with current students—is that there is a significant queuing phenomenon. Many students, especially outside of the state of São Paulo, take the exam several years in a row before being admitted.[2] Competition for admission to the elite federal universities is especially intense (some accept as few as 10 percent of the applicants). While most regions have many more aspirants than places for higher education, observers report that recently in São Paulo there has been a lack of qualified candidates and that university places go unfilled. MEC is conducting a study of

[2] It is worth noting that the time required to sit for the *vestibular* is between two to three days. In addition to the fee for the exam, students also incur other costs, such as travel to the exam site and food and lodging for the three-day exam period.

the reason for this reported regional oversupply. Data from the Educational Census of the Instituto Nacional de Estudios e Pesquisas Educacionais (INEP CES) confirm that the ratio of admission offers to new enrollments is growing only slightly.

Table 7. Ratio of the Number of Students Taking the *Vestibular* to the Number of Available Places, by Institutional Ownership (1999)

Year	Total	Federal	State	Municipal	Private
1980	4.6	7.8	8.1	2.5	3.4
1985	3.5	6.8	6.3	1.9	2.5
1990	3.8	6.2	6.8	2.3	2.9
1995	4.3	8.7	9.2	3.0	2.9
1997	3.9	8.5	9.0	2.3	2.6
1998	3.7	9.4	8.9	2.4	2.2

Source: MEC/INEP/SEEC 2000.

The National Education Law (the LDB) removed the requirement of the *vestibular* for university entrance, in hopes of leveling the playing field for admission, since poor students usually cannot afford the expensive *vestibular* preparation courses that lead to success on the exam. The National University of Brasilia (UNB) has recently experimented with admitting students who have not taken the *vestibular*. Instead of taking the *vestibular*, a group of candidates were identified early in high school and took "final exams" at the end of each year of high school. UNB reserved 25% of its places for the top scoring students in this group. This experiment drew complaints from the *vestibular* candidates who were now competing for a smaller number of places, and the practice was even (unsuccessfully) challenged in the courts. Because the experiment took place only recently, no data is yet available on the relative performance of the students admitted with the *vestibular* versus those without. Nonetheless, UNB plans to continue this mode of admission, and other institutions are now beginning similar pilot programs.

Box 1. The *Vestibular:* Is It a constraint to the Poor?

The *vestibular* system has been criticized for contributing to the difficulty that poor students in Brazil have in gaining admission to tertiary institutions. Presently, there is no standard nation-wide academic assessment or entrance examination for high school leavers. Individual institutions (or associations of institutions) design and administer their own exams to screen students for admission. These are generally quite rigorous, and tend to assess mastery of a set curriculum rather than academic potential. The term "*vestibular*" refers both to the individual exams and to the collective process of selecting students for admission. Critics point to three main sources of bias that limit the ability of the poor to succeed under the *vestibular* system.

First and most importantly, many students enroll in expensive private preparation courses that are designed specifically to increase scores on the *vestibular* exams. Fees for these courses vary according to quality, and can easily top two or three minimum wage income equivalents. The students who can afford these quality preparation courses are usually the ones who have already had the advantage of high-quality, private secondary education.

Second, the exam does not measure general academic ability or potential, but instead focuses more on mastery of a set curriculum and/or memorization of facts. Not only is this biased against those with poorer secondary instruction, but it also allows for more students to succeed through short-term preparation rather than on the basis of their innate skills or academic accomplishments. When judgement is based on academic performance all throughout secondary school, it gives a better indication of overall preparedness to succeed in university. As one indicator of how seriously this short-term preparation is taken, in São Paulo the best instructors for preparation courses are reported to earn six-figure salaries. Many of these are former teachers, who have left teaching for the more lucrative exam-preparation business.

Third, the tests tend to be located in metropolitan centers, which may be hard to the rural poor to reach. The simple logistics and the expense involved in traveling to the exam site and paying lodging and subsistence for the multi-day exams can be beyond the means of poor families.

Attempts to change the *vestibular* system have been fiercely resisted by those who might lose out. Court challenges to innovations that favor the poor have been brought, although to date they have not succeeded. Fear of this resistance may be one reason institutions have been slow to use the new legal freedom they have to accept students outside the *vestibular* system. Anecdotes confirm that the distortion of the system is such that a market for fraud has developed, with families paying up to R$50,000 to those who can provide a score guaranteed to win the desired admission place.

The government is taking two steps to eliminate this bias against the poor. First, the *vestibular* is no longer a mandatory requirement for admission. Students may be accepted on the basis of their academic records over the course of secondary school, on the results of annual final exams, or according to other criteria a school might set. Second, the government is instituting a national exam for secondary school leavers (similar to the Provão for undergraduates). This exam will provide a single, uniform measure of achievement nation-wide, and it will also place greater emphasis on general academic abilities and cognitive skills. Many institutions will be interested in students' scores because they wish to demonstrate the "value added" through their results on the Provão. It is hoped that these incentives will break down the inertia to admissions reform in Brazilian higher education institutions.

Source: MEC, 1997.

Teaching, Administrative and Technical Personnel

In 1998, the overall system employed approximately 165,000 teaching faculty, or roughly one faculty member for every thirteen students. Out of the faculty, 19 percent had doctorates, 28 percent had Master's degrees, 34 percent had completed specialization (short) courses, and 19 percent did not hold graduate degrees. The percent of faculty without a graduate degree is declining, with Ph.D. holders up 46 percent in 1998 over

1988 levels, holders of Master's degrees up 33 percent; and the number of faculty, without advanced degrees is down by 15 percent. There is over 189,000 technical and administrative personnel, or 1.2 per faculty member, but two-thirds of these are employed by the public system. The number of technical and administrative personnel has increased 3 percent between 1988 and 1998.

In the federal system the terms and conditions or employment for professors, technical, and administrative staff are regulated by the *Regime Juridico Unico* (RJU) and are classified within the civil service. All permanent staff, while contracted by the institution, is paid directly by the government. Prior to 1996, institutions were not permitted to develop their own staffing plans, set salaries, or establish promotion criteria. Professors are hired through open, public competition for positions, but the number and type of positions are controlled from the federal government. Universities had, in practice, no power to fire staff. Under the RJU, staff is entitled by law to a generous array of benefits, including retirement at 100 percent of their last salary, plus subsequent pay raises. Other rigidities have been firmly established through legislation. For example:

- Over 354 different job categories exist, from senior professor to cafeteria worker, and the federal government defines how many of each position each university will have. University administrators have no power to switch resources to different job categories as their needs change.
- Under the Law of Isonomy (1987), all faculty and staff throughout national territory are paid on the same salary scale, despite huge regional variations in cost-of-living.
- Promotion is based on length of service, not performance or qualifications.

The LDB changed these regulations and gave the universities the freedom, on paper, to set their own personnel policies. But pre-existing, contravening legislation is still in effect, and institutions will not have these powers in practice until broad civil service reform is passed. Once passed, many, but not all, universities are expected to exercise the new rules for new hires. The conditions of those contracted under the present RJU will not be changed, and will therefore continue to be a large strain on resources for some time. As with many higher education reforms, the legal basis was established long before the institutions had (or were willing to exercise) the power to implement changes.

Legal Framework

The principle pieces of legislation which have governed higher education in the recent era are the 1968 Higher Education Legislation Law (Federal Law 5540/68), the 1988 Constitution, and the 1996 National Education Law (*Lei de Diretrizes e Bases* [LDB]). The LDB was, in effect, a culmination of a series of laws from 1994-96 significantly changed the legal framework, increasing the autonomy of institutions. Also at this time, the National Council of Education (CNE) was created. The CNE replaced the older Federal Council of Education, which had been captured by the entrepreneurial interests

within the private education system (Schwartzman, 1998).[3] The current regulatory framework is a blend of the old school of thought, in which the role of the government was to control tertiary institutions, and the new school, which supports autonomy with accountability in universities and government regulation and oversight of non-university institutions. It is worth noting, at this point, that, as in any country, there is always a lag time between changes in the legal framework and implementation. Some of this is due to the existence of contravening legislation, to the resistance to autonomy and to the inertia within universities themselves, and to the lack of available funds to fully implement the changes. However, the changes in the legal framework do serve to signal the policy shifts in tertiary education. The example of Chile serves to highlight how the appropriate legal framework does lead to meaningful reform.

[3] The Brazilian Constitution does not specifically state that the federal government is responsible for higher education; only that it is responsible for the federal education system. With this objective in mind, the role of the federal government has been to oversee the federal system of tertiary education and to supervise private sector institutions (Schwartzman, 1998).

Box 2. A New Wave of Higher Education Reform in Chile

Chile has recently committed US$241 million to launch its second wave of higher education reforms. The new policy package, supported by the World Bank, builds upon the reforms of the early 1980s, furthering transformations that proved successful, fixing what failed to achieve its intended results and adding new dimensions to the reform effort. This case of second-wave reforms, unique in Latin America, can provide some guidance to countries in the region now embarking on first-generation reforms. First-generation reforms in Chile included: cost recovery in public universities through tuition fees and diversification of funding sources; government funding tied to institutional performance; rewards for good faculty performance and disincentives against mediocre work, evaluation systems aimed at fostering accountability and improving quality; strengthening of vocational training; institutional diversification; and privatization, both in the sense of allowing for private provision of post-secondary education, and of increasing private-sector contributions to higher education funding.

Starting in 1981, Chile opened for diversification of its higher education system: by 1996 there were 242 private and 25 public institutions, with private enrollments at 63 percent of the total, and only one-third of the budgets of public institutions coming from government appropriations. New legislation allowed post-secondary education to diversify into three tiers (universities, professional institutes, and technical training centers) and stimulated the growth of the vocational training sector, so that by 1996 one-third of all post-secondary students were attending non-university technical or professional programs. The government has experimented with performance- and contract-based funding, and it lets universities regulate personnel issues. While public university tuition levels match those of private institutions, financial aid is available in the form of scholarships and loans. Finally, an accreditation system was established in 1990.

After almost two decades of reform, Chilean higher education scores high relative to Latin America in efficiency, coverage, overall quality of teaching, research productivity, institutional diversification, and evaluation. However, despite successes in many areas, some difficulties remain. The second generation of reform initiatives endeavor to correct problems raised by the previous reform. Proposed remedial measures include: strengthening public funding for the improvement of teaching, research, and training of researchers, via competitive mechanisms and contracts; complementing the current institutional accreditation system with a national program evaluation scheme; and improving the capacity of public agencies to coordinate the higher education system. The unifying motive behind the reforms appears to be reclaiming a role for the state in the regulation of the higher education system in which the government will assume a much more active role in ensuring the production of public goods, setting standards for quality and monitoring their application, disseminating information, defining priorities for the allocation of funds, and ensuring that institutional commitments are honored. In a word, the state will do more to assure the accountability of the system and its component institutions to their various constituencies.

Source: Andrés Bernasconi. 1999. "Second Generation Reform in Chile". International Higher Education. Boston College, Boston.

The subcommittee on higher education within the CNE is the primary tertiary education regulatory body. The subcommittee is made up of independent citizens appointed for long, fixed terms by the President of the Republic. The CNE has broad powers to regulate higher education. Among these are responsibilities to: i) evaluate higher education and accredit institutions; ii) create curricular guidelines for undergraduate courses; iii) authorize the creation of new courses and the elimination of existing ones; iv) propose and/or authorize statutes and rules pertaining to the federal system of higher education; and v) analyze and/or authorize the re-accreditation of undergraduate courses through the existing evaluation system.

In practice, the CNE has worked primarily as a regulatory body for the private sector, and along with the MEC/SESU, has full regulatory control over private institutions. The CNE, in cooperation with MEC/SESU, reviews petitions for the creation of new institutions (which, if approved, then must be approved as a law or decree by the Congress) and issues permission for institutions to offer specific study programs. Private institutions, which are not universities, must seek CNE approval to offer a course, to approve the number of proposed places, and to approve the fees charged. In order to circumvent CNE control, it is not uncommon for private institutions to seek university status to be free to open courses of study and set the number of places.

The federal government and the CNE have no jurisdiction over state and municipal universities, except in the area of curriculum: Because all diplomas must be recognized by the federal government, state and municipal universities must follow the curricula guidelines issued by the CNE. All other aspects of institutional management, such as budgets, personnel and salary policies, the number of institutions, the types of institutions, and the number of places offered in study programs, are determined by state higher education councils. State councils also decide the status of the institution, that is, whether it is a university, a university center, or an integrated or isolated institution.

An important part of the National Education Law (*Lei de Diretrizes e Bases da Educação*: Law 9.394) was passed in December of 1996. This part of the law is instrumental in that it defines a university as an institution dedicated to the production and advancement of knowledge, *having at least one-third of its faculty holding advanced degrees (Ph.D. or Master's), and at least one-third of its faculty being full-time.*[4] The law confers autonomy, within the confines of existing legislation, on universities to: (i) establish courses and set curricula; (ii) increase or diminish enrollment according to capacity; (iii) establish research programs; (iv) enter into contracts as legal entities; (v) administer public and private revenues; (vi) receive gifts and inheritances; and (vii) accept students who have not taken the *vestibular*. Faculties at public universities are given autonomy over hiring, firing, and career path decision of teaching faculty. Additional proposed legislation—part of the government's administrative reform—is being debated in Congress, which would firmly establish the autonomy of higher education institutions to hire, fire, and set promotion standards.

Another important piece of legislation, passed in 1997, clearly distinguishes between proprietary, profit-oriented private institutions, and non-profit private institutions. According to Schwartzman (Higher Education in Brazil: First Moves. International Higher Education, Fall 1997), under this legislation, for-profit schools would pay taxes just as any other business, but in return, they would be allowed more freedom to run their institutions as they see fit. Non-profit schools, on the other hand, would be held to a stricter set of educational controls within the communities that they

[4] It is anticipated that this section of the law will prevent non-university institutions from joining forces to form a university because they will be unable to meet the requirements of the university definition regarding the quality of faculty and the number of full time faculty.

are supposed to serve. To date, no institutions have declared themselves profit making and the control mechanisms for the non-profit sector are still not fully implemented.

The introduction of "sequential courses" is also part of the new legal framework introduced in 1996. Sequential courses allow institutions to offer two-year study programs which lead to a degree, similar to an Associate's Degree in the U.S. system. Students who cannot take, or who do not want to take, the time to earn a Baccalaureate, will find sequential courses much more flexible. Upon completing their studies, students will have credentials, which will help them in the labor market, and should they want to return to tertiary education sometime in the future, their two year degree will be recognized in all tertiary institutions and they may begin their studies in the third year. The idea of sequential courses is quite new to Brazilian tertiary education, and while legally recognized, no institutions are currently offering such degrees.

The LDB also opened the door for changes in the curricula and permits much greater autonomy for institutions to determine the types and amounts of education they offer. Previously, there was a legally mandated, proscribed "minimum curriculum" for each recognized degree category. The minimum curriculum mandated almost entirely how each of the 3,600 actual hours of course work required for each course or study program were to be spent. New curricula guidelines require only that institutions follow broad curriculum guidelines and focus more on providing competency-based curricula. The academic and relevant professional communities took part in designing the new guidelines, submitting and refining proposals to their colleagues on the curriculum reform committees. While some disciplines have maintained a standard number of hours (usually about 3,600), the new guidelines are much more concerned with identifying what a graduate should know and be able to do, rather than mandating the exact content of the curriculum.

Accreditation and Evaluation

The accreditation of institutions and assurance of the quality of courses and curricula is the responsibility of the National System of Higher Education Evaluation, coordinated by the *Secretaria de Ensino Superior* (SESU) of the Ministry of Education. The CNE receives an accreditation report prepared by SESU and makes its recommendation on accreditation to the Minister. Three main instruments that serve the purposes of accreditation and evaluation: (a) the *Exame Nacional de Cursos* (ENC or "*Provão*"), part of which requires self-reported evaluations from the institutions; (b) the expert evaluation committees; and (c) the continuous collection of data by INEP under the national census of higher education.

Most prominent among these is the *Provão*, or the *O Exame Nacional do Cursos* (National Evaluation of Undergraduate Programs), an institutional self-evaluation, which was introduced in 1995. The National Education Law requires the *Provão* as a means for continuous evaluation for quality improvement in higher education. The exam is designed to gauge the performance of the institutions more than the performance of the students, but students must take the exam to have their degrees recognized by the government.

Data about the institution is self-reported. Institutional results are made public on an annual basis through both the local newspapers and via a government publication. The publication of *Provão* scores has attracted considerable media attention and there is recent evidence that students and their families are using the information when selecting a tertiary institution. Individual student scores are not publicized, although employers are said to be interested in a potential employee's score. The *Provão* is currently offered in 13 subject areas but the intention of MEC is to have it available in all subject areas in the future. It is the first instance in Brazil of higher education institutions having been subjected to a nation-wide, systematic evaluation. The *Provão* also provides a means for collecting in-depth data on the profile of graduating students, and their evaluation of the quality of the education they received. CAPES, the graduate education council, maintains an evaluation system for individual graduate programs. The system is well known and credible, but it does not rely on large-scale examination of graduating students.

Box 3. The Influence of the *Provão*

The Exame Nacional dos Cursos, or *Provão*, has dramatically raised public awareness about quality in tertiary education. This standard, nation-wide exam measures the performance of graduates in over a dozen disciplines. The results are disaggregated by institution, and published. As such they serve as a *de facto* comparative indicator of the quality of graduates, and, by inference, the quality of instruction and education.

Since its inception in 1996, the *Provão* has grown both in coverage and influence. The first exam covered only three disciplines (Administration, Engineering, and Law). The very existence of the *Provão* provoked strong opposition from segments of both the students and the professoriate, including boycotts and threaten disruptions at exam sites. Such opposition has not continued, especially given the interest of the press, and the general public in the results. In its fourth year, the *Provão* is now widely accepted, and several hundred articles have documented the effects it is having on the Brazilian university system.

The most notable effect has been to provide much greater information on quality of individual degree programs to potential students, thereby creating more savvy educational consumers. Private institutions, many of which felt wrongly deprived of prestige by the wealthier, research-oriented public universities, now have an objective means of demonstrating the quality of their course programs. Several well known public universities have degree programs whose *Provão* scores were disappointing; these are now struggling to save their reputations as the leaders in the field.

Students are voting with their feet thanks to the *Provão*. Applicants now routinely inquire about *Provão* performance, and schools that do well highlight this information in their informational literature. Those private institutions whose scores have been consistently high have almost universally reported increasing applications. Also, private universities, which have now proven their quality are attracting talented professors away from public institutions.

In addition, the *Provão* also provides a reliable annual survey of graduates, from which important information is gathered on students backgrounds, attitudes toward their education, and further goals. This information, along with additional evaluation activities undertaken by MEC/SESU, is creating feedback loops into higher education policy.

The *Provão* is not a cure all for quality in the Brazilian system. It has been pointed out that the system tends to favor the winners, rather than help those that are struggling. In addition, the *Provão* tends to reinforce the disciplinary structure of Brazil's higher education system, at a time when multi-disciplinary studies and general skills are increasingly valuable. Lastly, the *Provão* does not at present show the "value added" of the education, since there is not yet a standard exam for high school leavers. (This last point would change with the inauguration of the *Exame Nacional de Ensino Medio*, due to begin shortly). Still, even considering these critiques, observers are nearly unanimously agreed on the revolutionary impact the *Provão* has brought about in concern for quality in higher education.

Source: MEC/INEP, Exame Nacional de Cursos, 2000.

A second main instrument in the accreditation process is Institutional Evaluation or the Program of Institutional Evaluation of Brazilian Universities (PAIUB). In this phase of the accreditation process, a committee of specialists, made up of peers from academia, perform site visits in which they tour/inspect institutions and sit in on classes. During their visits they examine the qualifications of the faculty and staff, evaluate the pedagogical skills of the faculty, and assess the condition of the institutions infrastructure.

Institutional evaluation is a new addition to the accreditation process in Brazil, but already approximately 800 courses have undergone this type of evaluation.

The third instrument in accreditation and evaluation is the continuous data collection by INEP. This provides both the institutions and the government with time series data and allows institutions to gauge their progress over time as well as provide information for international comparisons.

Under the LDB, institutions and courses must be re-accredited periodically. The different instruments are used to determine which programs are most in need of this. For example, those programs with consistently low marks on the *Provão* for three consecutive years are scheduled for review by the *PIAUB*.

Institutional Governance and Management

The governance and management of Brazilian public universities is best described as a mix of the old and the new paradigms –the old bureaucratic method of government control has been couched in a democratic philosophy, backed by the new legal framework described earlier. Rectors are elected by the university community as a whole, with students and technical and administrative personnel having voting rights. As a result, the main responsibility of many rectors has been to advocate for rights and privileges from the federal government, thereby protecting and expanding their "constituency". Recent changes have somewhat lessened the democratic nature of this process. Currently, candidates for rector must be from the two highest academic levels, Ph.D. and Master's, or from the top rank of administrative seniority. The President of the Republic chooses rectors from triplicate lists compiled based on votes from the community of a given university, but now the votes from the faculty are weighted to account for at least 70 percent of the voting outcome. Some universities have resisted these changes to the selection process, and a well-publicized conflict with MEC resulted from failure of at least one institution to follow the new procedure. Rectors serve a four-year term, which may be renewed once.

Brazil's large private higher education sector, ranging from a few institutions at the research university end of the continuum to the majority near the non-university end, are subject to considerable governmental control. In the private sector, the CNE controls initial approval to operate as a university or college, the courses of study or programs that can be offered, and the maximum tuition that can be charged. Through the 1960s and into the early 1980s, most of Brazil's private universities also received substantial public operating subsidies, further reducing the significance of their private status. By the 1990s, however, this operating support had been mainly eliminated, making the private institutions quite tuition dependent—no longer depending on public revenue, but still subject to various public controls (Johnstone, 1998).

Student Loans

At this time, there is no national program of grant assistance, and loans are available to a small number of students attending private institutions. This financing pattern is at least

in part a function of the fact that public institutions in Brazil do not charge tuition, thereby reducing the perceived need for student aid (Hauptman, 1998). New, and as-of-yet unconfirmed data regarding student assistance has recently become available (see Table 8, below). It shows that Brazil has a relatively modest commitment to student aid, with approximately 19 percent of enrolled students receiving aid. Within these modalities are "research assistantship" for undergraduates, a large percentage of which remains with the university department as "bench fees". Also included in these figures are tuition discounts granted by private universities. However, recently legislation re-defined the tax status of these discounts; universities may no longer receive any tax benefit from aiding students, and the number of these discount "grants" may drop sharply once this new legislation takes effect.

Table 8. Enrollments and Aided Students by Type of Institution, 1999

Institution Type	Enrollments	Aided Students	% with Student Aid
Federal Universities	392,176	40,198	10.25
State System: São Paulo	65,014	8,808	13.55
Other State Universities	150,022	10,969	7.31
Private, Municipal Universities	777,665	226,621	29.14
Other Federal	15,309	1,387	9.06
Other Sao Paulo	4,326	321	7.42
Other State	21,662	0	0.00
Other Private	582,172	101,860	17.50
TOTAL	2,008,346	386,260	19.43

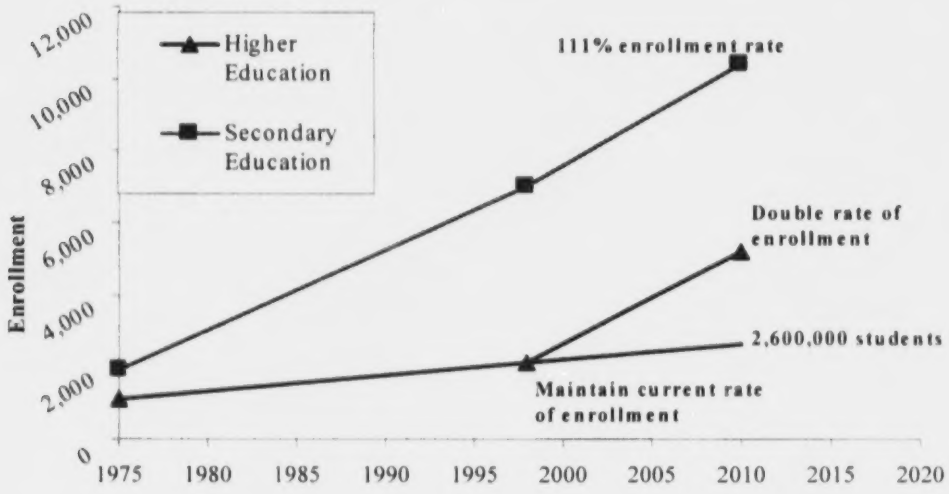
Source: Private Communication (S. Schwartzman).

Brazil has had a national student loan programs since 1976, although it has gone through three different structures. All three have involved the Federal Savings Bank (*Caixa Economica Federal* - CEF), and all three have encountered two main difficulties: The first has been the failure to allow sufficiently for inflation. The second was the relatively high default rates, coupled with low efficiency in pursuing defaulters. From 1995-98, the program lent an average total of R$ 72 million to 26,000 students annually. The government is currently investigating plans to launch a new student loan scheme, this time with more private sector participation (Further discussion of issues pertaining to student loans and fees can be found in Section Two on the Economic Issues and Perspectives).

The Need for Expansion

One of the main challenges facing Brazilian higher education is expansion. Below are plotted the actual and projected enrollments at the secondary level, the actual growth in higher education from 1975 to 1998 and two *possible projections* of higher education enrollments to 2010. The bottom projection assumes a continuation of the growth rate of the past 25 years and would lead to a growth, in absolute numbers, of about 600,000 students. The top projection assumes increasing the gross enrollment rate to 22 percent, which would double existing capacity by increasing enrollment from two-million students to 5.2 million.

Graph 7. Growth in Secondary and Higher Education Enrollment, 1975-2010



Source: Avaliacao do Sistema Educacional Brasileiro.

This is not an overly ambitious goal (Graph 7 shows that several countries have experienced this type of growth) and fits in well with the goals of the 1997 National Education Plan (*Plano Nacional de Educacão*) which seeks to increase the provision of post-basic education to 30 percent of the 19-24 year old age cohort. Indeed, estimates by both Hauptman (1998) and Sheehan (section 2 of this paper) indicate that 40,000 to 500,000 places will be required by 2005 to prevent participation rates from falling and that about 900,000 places will be required to allow for the increased demand expected by larger numbers of students completing secondary education and wanting to continue in some form of tertiary education.

Table 9. Secondary School Graduates, by Type of Institution 1980-1998

Year	Graduates	Type of Institution			
		Federal	State	Municipal	Private
1980	541,350	16,370	203,986	18,720	302,274
1984	585,193	17,835	273,127	23,360	270,871
1990	658,725	19,797	356,813	29,070	253,045
1995	959,545	15,941	640,168	50,918	252,518
1996	1,163,788	21,019	769,489	64,566	308,714
1997	1,330,150	24,985	892,901	73,919	338,345
1998	1,535,943	26,017	1,067,478	80,648	361,800

Source: MEC/INEP/SEEC 2000

Growth in secondary school graduates between 1980 and 1998 was 184 percent and between 1997 and 1998, the number of graduates rose by 16 percent (Table 9). These two trends, the government's desire to increase participation of the 18–24 year-old cohort, and the increased number of secondary school graduates will serve to drive up the demand for tertiary education. Whether there will be adequate places available to accommodate the additional demand is a chief question facing Brazil.

Section Two: Economic Issues and Perspectives.

This section will look at three main aspects of Higher Education: (a) external efficiency, which refers to the links between higher education and the wider economy; (b) internal efficiency, which refers mainly the cost structures; and (c) equity, with reference to possible developments in student aid and other measures to promote wider access to higher education.

External Efficiency

In this section, we will outline the likely effects on economic growth and development in Brazil, of the present state of higher education, and highlight some of the resulting implications for higher education policy. In general terms, Brazil has maintained a gross participation rate in higher education of approximately 12% of the relevant age-cohort during the 1990s. This is low by OECD standards, where participation rates of significantly more than 30% are now the norm, and it is also low by Latin American standards.

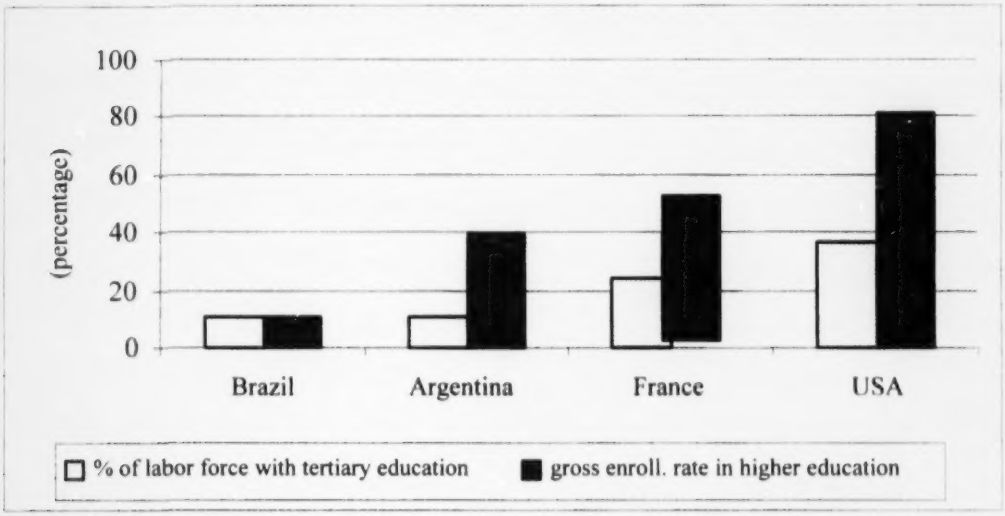
Human Capital and Economic Growth: The importance of human capital for economic growth has long been accepted, both within the conventional neo-classical (Solow) framework, as well as within the newer "endogenous" growth theories.[5] The "new" view of growth stresses the importance of human capital in two ways: first as a means of enhancing the stock of knowledge and its dissemination, and second as a way of increasing the effective labor supply such that increased amounts of physical investment do not, in the longer term, run into diminishing returns. Generally the newer growth models provide a more coherent explanation of the "unexplained" residual (i.e. that proportion of output growth which cannot be accounted for by conventionally-measured increases in labor and capital inputs), and stress the importance of education and training, not as sufficient, but as necessary conditions for sustained growth. At a more micro level, conventional "social" rate of return estimates typically confine themselves to the direct resource costs and earnings related to education, and do not take many of the wider, indirect effects of education into account, especially the effects on knowledge production and dissemination. Some of these indirect effects are likely to be important for higher education.

Long-run Changes in Labor Force: Globalization implies that economic growth in Brazil is not simply a matter of *absolute* accumulation of human and physical capital: the quality of the labor force *relative* to competitor countries also matters. At this point

[5] Lau, Jamison, Liu and Rivkin have estimated that education contributed 2.1% per annum to Brazil's growth rate in the 1970s. The overall growth rate of output was 10.7% per annum, and inputs of physical capital and labor grew at 20.1% and 4.7% respectively. In recent years, growth of output and conventional (labor and capital) inputs has been much lower. See "Education and Economic Growth: Some Cross-Sectional Evidence". In: Nancy Birdsall and Richard H. Sabot (eds.). 1996. *Opportunity Foregone: Education in Brazil*. Inter-American Development Bank, Washington, D.C.

in time, Brazil does not fare too badly - about 11 percent of its labor force have some higher education. This compares well to Argentina (see Graph 8).

Graph 8. Global Context: Educational Attainment of the Labor Force, Stocks and Flows (1996)



Source: Education at a Glance: OECD Indicators 1998; UNESCO Statistical Yearbook 1997.

However, these numbers refer to the existing labor force. The picture is less favorable when we examine the flow of new labor into the stock. Precise comparisons are difficult, but there is some information, which enables us to look at likely long-run implications of present policies. We can measure average existing quality by the ratio of the total stock of higher-educated personnel to the total labor force. We can use the enrollment rate of the 18 to 24 year-old age group in higher education as a measure the quality of (marginal) additions to the labor force, and we can then make projection of likely changes in labor force quality. Maintaining the inflow at a steady quality level will ensure that the stock eventually converges on that level; where the additions to the stock are of higher quality (i.e more educated) than average long-run quality, then the average will increase over time. Some information on this has been highlighted in a paper by Donald R. Winkler[6] and is shown in Table 10:

[6] World Bank. 1998. "Economic Issues in Brazilian Higher Education". Paper presented at the World Bank, Washington, D.C.

Table 10: Labor Force Quality: Existing and Prospective Labor Force with Higher Education

	Stock (% Total Lab Force with HE 1995-97)	Stock: Relative to Brazil =100	Inflow (HE% Enrollment Rate)	Inflow: Relative to Brazil =100
Brazil	12	100	12	100
Argentina	12	100	29	240
France	24	200	49	410
USA	37	310	79	650

Source: Education at a Glance: OECD Indicators 1998; UNESCO Statistical Yearbook 1997.

As the flow enrollment rates are gross (and thus do not adjust for failure to complete courses), they overstate the position with respect to long term trends, but this holds for Brazil as well as the other countries. In practically every country for which data is available the inflow has significantly more higher education than the existing stock, and the implication is that labor force quality will continue to increase in the medium to long term. Brazil seems to be an exception: the implication of the *status quo* is therefore that in terms of labor force quality (as measured by the proportion of the labor force with higher education), Brazil will experience a steadily worsening position relative to its competitors, whether remote or its Mercosur neighbours.

As well as implying a worsening of Brazil's relative position, the *status quo* implies a worsening of chances for leavers from secondary schools (*Ensino Médio*). Between 1990 and 1995 enrollments at this level have increased from 3.78 million to 5.74 million, and the rate of increase has accelerated so that by 1997, the number of 6.97 million were enrolled. Graduates from *Ensino Médio* have been increasing at a rate of over 100,000 per year up to 1995, and by about 200,000 per year since then. The fact that the rate of intake into *Ensino Médio* has accelerated since about 1995 implies that graduate output from that level will accelerate further during the next few years. In addition, underlying this is a demographic bulge: in 1996 the numbers aged 10-14 were 22% higher than the numbers aged 20-24, which means increased population pressures up to about the year 2005. Given an increase of about 600,000 in the size of a higher education entry age population cohort between 1996 and 2005, even maintaining existing higher education enrollment to population rates would necessitate an annual increase in intake of over 70,000, and an increased stock of at least 400,000. The increased enrollment levels in *Ensino Médio* would practically double the purely demographic effect, so to maintain the chances of an *Ensino Médio* graduate getting into College would require an extra annual intake of at least 140,000 by 2005 and an increased stock of 800,000 in higher education by about 2009 compared with 1996-97. Broadly similar estimates have been made by Hauptman,[7]

[7] Arthur Hauptman. 1998. "Accommodating the Growing Demand for Higher Education in Brazil: A Role for the Federal Universities?". LCSHD Paper Series No. 30. World Bank, Washington, D.C.

whose low estimate (slowing of secondary enrollment growth, no increase in transition rates to higher education and no increase in college participation rates) was an extra 500,000 places, and whose high estimate (allowing for increased rates of secondary school graduation and a doubling of college participation rates) was an extra 2.4 million. The different scenarios are summarised in Table 11.

Table 11. Some Alternative Demand Scenarios for Higher Education in Brazil: 2005-2010

Base Enrollment in 1998		1.9 million
ESTIMATE	ASSUMPTIONS	NUMBERS
Hauptman Low Estimate	Slowing growth in Secondary, unchanged transition to Higher, unchanged Higher Participation rate	2.4 million total 0.5 million extra
Hauptman High Estimate	Continued increase in Secondary Graduation Rate, Doubling of Higher Participation Rate (to circa 24%)	4.4 million total 2.5 million extra
Sheehan Low Estimate	Maintaining Secondary and Higher participation rates: accommodating developments only	2.3 million total 0.4 million extra
Sheehan High Estimate	Allowing for acceleration in Secondary enrollments, maintaining transition rates from Secondary to Higher: Higher participation rate rises to about 15%	2.7 million total 0.8 million extra

Source: Hauptman, 1998.

Among the goals of the 1997 *Plano Nacional de Educacão* is the provision of post-basic education to 30% of the population aged 19-24. While this target might include some education which is not higher (more like further education), it is nonetheless ambitious and the higher demand scenario outlined by Hauptman is broadly in line with it.

Generally the message is that by 2005 to 2010 a minimum of 400,000 to 500,000 places are required to prevent participation rates from falling, that about 900,000 places would be required to allow for likely increased demand arising form developments at the Secondary level, and that much greater amounts (and extra 2.5 million or more) would be required if Brazil is to keep in touch with other countries increasing investments in highly qualified manpower.

Overall therefore, there are compelling reasons related to external factors why a significant expansion in higher education enrollment is warranted: long-term economic growth, long-term competitiveness in terms of quality of labor force and the increased pressures coming from demographic and secondary school sources. The next section, which deals with internal efficiency, shows that there are problems in accommodating this expansion, especially in the public sector, and that these relate to high unit costs.

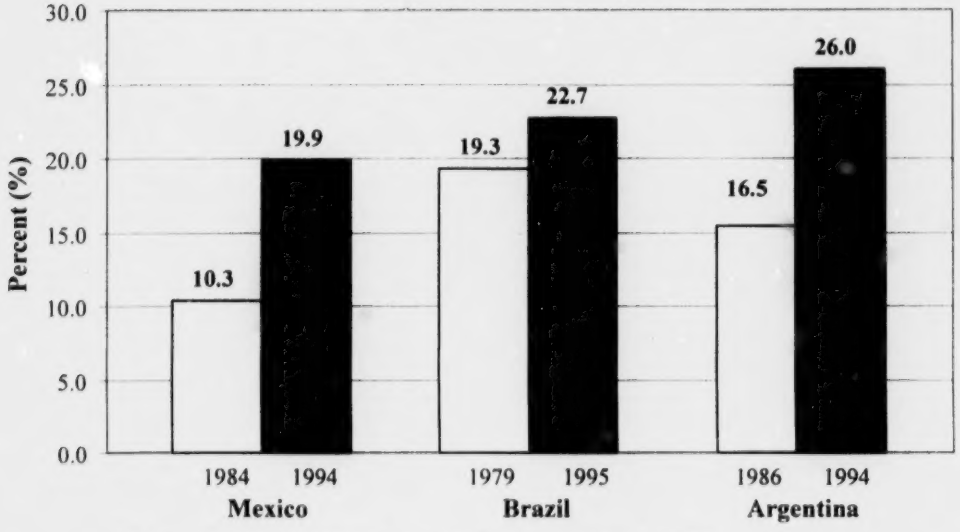
The estimates of extra enrollments by Sheehan and Hauptman shown in Table 11 are mainly derived from quasi-social objectives such as maintaining transition rates from secondary, or accommodating demographic pressures (with the exception of the "high" Hauptman estimate which incorporates specific targets for increased age-participation rates). The question therefore arises about the economic underpinning of these quasi-social targets, and one obvious indication is to look at rates of return. Here the recent evidence is fragmentary.

On the rate of return to higher education in Brazil, the information provided by Paul and Wolff, Pessino (1995) and Barros and Ramos (1996) clearly imply high private rates of return to higher education (see Graph 9).[8] In addition, Tannen[9] estimated returns to education in 1980, and found private (real) rates of 12 to 13%, and these included high private rates of return to university (especially federal university) education. Also in the federal sector social returns were low relative to private, because of the high levels of subsidy.

[8] Paul, Jean-Jacques, and Wolff, Laurence. 1992. *The Economics of Higher Education in Brazil*, Human Resources Division, Technical Department, Latin America and the Caribbean Region, the World Bank, Washington, D.C. The (mean) earnings premium of higher over secondary graduates appears to be as much as 40%.

[9] Tannen, Michael B. 1991. "New Estimates of the Returns to Schooling in Brazil:" *Economics of Education Review*, Vol. 10, No. 2, pp. 123-135.

Graph 9. Global Context: Private Returns to Higher Education



Source: World Bank, 1998; Pessino, 1995; Barros and Ramos, 1996.

Since 1980, there are indications that income inequality in Brazil increased, at least in the 1980 to 1985 period. There is also a well-documented increase in earnings inequality and a concomitant increase in rates of return to education in many OECD countries since the mid-1970s, and the general consensus is that technology is the dominant causative factor, which means that one might expect such a global force to be at work in the Brazilian labor market, too. In general terms therefore there are *a priori* reasons for expecting high private and social rates of return to most types of higher education in Brazil.

Almeida dos Reis and Paes de Barros[10] have shown that regional differences in wage inequality are not due to differing distributions of education between regions but are principally due to differences in the steepness of wage-education profiles between regions, i.e. to different rates of return to education.

Rates of return estimates need to be adjusted for ability and selection bias, including the effects of family background. Lam and Schoeni[11] have used data from the 1982 PNAD to make family-background adjustments: Typically, the return to a marginal year of schooling was higher for year 15 (completed university) than for year 11 (completed secondary): 27.43% compared with 22.9%. Controlling for parental education reduced the returns by about one-quarter: to 17.28% and 20.47% respectively. While

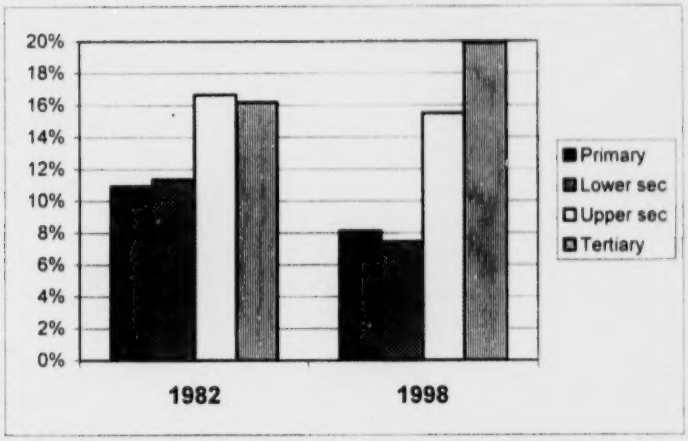
[10] Almeida dos Reis, Jose Guilherme, and Paes de Barros, Ricardo. 1991. "Wage Inequality and the Distribution of Education: A Study of the Evolution of Regional Differences in Inequality in Metropolitan Brazil". *Journal of Development Economics*, Vol. 36, pp.117-143.

[11] Lam, David, and Schoeni, Robert F. 1993. "Effects of Family Background on Earnings and Returns to Schooling: Evidence from Brazil". *Journal of Political Economy*. Vol. 101, pp. 110-740.

these are not rates-of-return-over-cost, they are indicative of potentially high private rates of return. Social rates of return are likely to be lower, especially for heavily subsidised, high-cost courses.

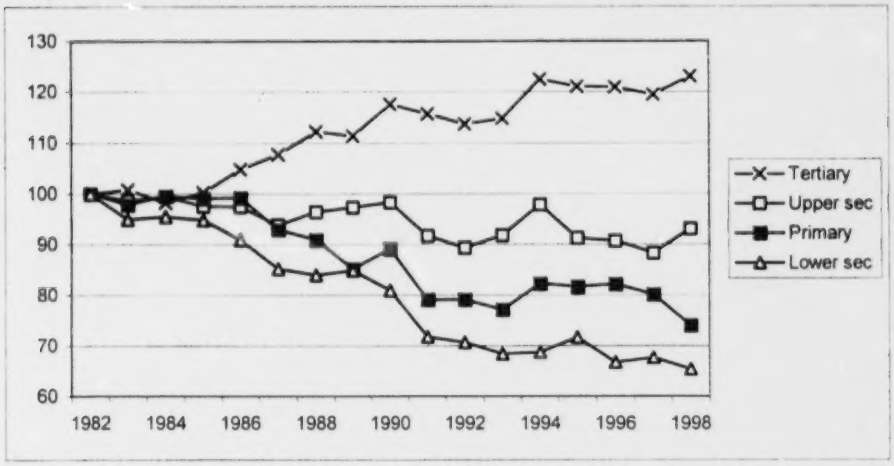
A World Bank working paper by Blom, Holm-Nielsen, and Verner (2001) examined the rates of return to schooling by educational level between 1982 and 1998. It found that the returns to higher education had increased by 24% from 16.1% in 1982 to 19.9% in 1998, while the returns at all lower levels of education had decreased, 26% for primary, 35% for lower secondary and 8% for upper secondary education (Graph 10). Since the return to each level of education changed slowly and persistently (Graph 11), this trend suggests structural mechanisms as the underlying reasons for change, which includes institutional changes in the labor market, shifts in labor supply, the impact of new technology, increased openness to the world market, and changes in the relative size of sectors. Further, returns to schooling within education groups differ considerably across the wage distribution, but are becoming more homogeneous at the tertiary and pre-tertiary level, with the exception of upper secondary education. The paper argues that changes in rates of return to schooling ("price effect") rather than changes in the distribution of schooling ("composition effect") would have an impact on wage inequality. Over the last two decades, the increasing returns to tertiary education in Brazil have not led to a higher share of workers with tertiary education, which, in turn, could have reduced wage inequality. In fact, the share of workers with completed tertiary education has slowed down because it increased by 27% in the 1980s, but only by 8% in the 1990s. Since the current supply of highly skilled workers in Brazil inadequately satisfies the growing demand for workers with advanced skills, the paper recommends a policy course of action that seeks to reform the institutional framework of tertiary education to provide the demanded highly skilled workers, which would have an overall, long-term impact on economic growth and wage inequality.

Graph 10. Returns to Education by Level for 1982 and 1998



Note: Each bar indicates the private returns to one additional year of completed schooling at the designated level.
Source: authors' calculation based on PME-data.

Graph 11. Indexed Returns by Level of Education (1982=100)



Note: The coefficients are indexed returns to schooling estimated from earnings-regression with control variables.
Source: authors' calculation based on PME-data.

The provisional judgement would have to be therefore taking account of: i) rates of return estimates; ii) trends in income inequality; iii) global economic factors such as the impact of technology on labor markets; and iv) adjustments which take account of family-background bias. There are good reasons for being optimistic about real rates of return, both private and social, to higher education.

Internal Efficiency

A major characteristic of the Brazilian system of higher education is the high level of per-student costs, especially in the federal university system. Before looking at some of the factors, which explain these high costs, it is useful to put them in context. Education is a highly labor-intensive process, and generally one might expect education unit costs to be related to GDP per head. There are, however, many additional factors which might influence this relation, notably staff-student ratios and the relative pay of academic and other staff compared with economy-wide incomes.[12] A useful summary measure of the real economic cost of education is expenditure per student as a proportion or percentage of GDP per head. The available information for 1999 is summarized in Table 12, which ranks countries according to their ratios of university unit cost/GDP per head.

[12] A regression of cost per Student on GDP per head shows a significant result, with a coefficient of 0.33 on the independent variable and $R^2 = 0.33$. Adding the student staff ratio (SSR) increases the R^2 to 0.4, but the coefficient on SSR is statistically insignificant, suggesting that a high staff costs are offset by in high SSRs, in line with what one might expect from cost-minimizing behavior. Brazil however has high staff costs (relative to GDP per head) and in addition a generous staffing level (i.e. low SSR). When one looks at the relation between the unit cost/GDP per head ratio and the level of GDP itself, there is no evidence that higher education gets relatively more or less expensive as societies become richer.

Table 12. Higher Education Costs and Inputs (1999)

COUNTRY	(a) Expenditure Per Student/GDP per Head	(b) Salaries as % Current Costs	(c) Ratio Students to Academic Staff
Brazil (federal universities)	2.14	85	13.3
Brazil (all higher education)	0.86	NA	12.6
Chile	0.67	NA	NA
Israel	0.62	77	NA
Switzerland	0.61	77	NA
USA	0.61	76	14.0
Canada	0.58	69	NA
Hungary	0.53	64	12.1
Mexico	0.48	84	14.8
Austria	0.48	71	15.0
Australia	0.48	65	NA
United Kingdom	0.45	57	18.5
Netherlands	0.44	76	12.0
Czech Republic	0.43	51	14.9
Norway	0.42	65	13.4
Germany	0.41	76	12.3
Japan	0.41	65	11.5
Ireland	0.38	73	17.3
Denmark	0.37	78	NA
France	0.34	70	16.9
Finland	0.34	64	NA
Spain	0.30	79	16.4
Greece	0.29	62	26.0
Italy	0.28	76	24.8
Uruguay	0.24	84	7.4
New Zealand	NA	NA	14.8
Portugal	NA	70	NA
Malaysia	NA	55	NA

Note: The estimate for all Brazilian higher education is by the authors of this study. For other countries, data generally refer to universities only. In some cases, data refer to all higher education, which is usually the case when universities are the predominant type of institution.
Source: Education at a Glance: OECD Indicators 2001.

The unweighted mean cost per student/GDP per head of the 23 countries (excluding Brazil) for which information has been collected by the OECD is 0.44, so Brazil's federal university ratio of 2.14 is quite exceptional, five times the average and more than three times as high as the second-ranking country (Chile). It should be clear that personnel costs are the main reason behind this: Brazilian federal universities have the most generous staffing ratio of all the countries for which data is available (see Column (c) of Table 12). The high staff costs are also associated with a very high share of staff costs in the total recurrent costs of the universities: again Brazils ratio (85%)[13] is the highest in the OECD sample. Of course, these

[13] The 85% ratio is an underestimate according to some Brazilian sources, which estimate the staff costs (*Pessoal e beneficios*) at 95% of expenditures and all other costs including investment (*Manutencao e Investimento*) at just 5%. See Odilon do Canto et al. 1999. "Financiamento da Educacão Superior Brasileira: O Sistema Publico Federal". Instituto Andifes, Brasilia. These estimates are based on a more comprehensive definition of staff costs, including non-salary benefits.

comparisons are heuristic only, since they contrast one part of the Brazilian system with the entirety of other national systems. Making an estimate for the entire tertiary education system changes the picture significantly: the private sector institutions operate at much lower unit costs, and this pushes the aggregate ratio for Brazil down to 0.86, which is still relatively, though not exceptionally, high.

There are other factors behind the high costs levels found in Brazil: these have already been remarked on in previous studies. First, on top of generous academic staff ratios, Brazilian federal universities have a high level of non-academic staff: 2.2 per academic staff member. More information is needed on exactly what this staff does[14] in order to judge whether or not the ratio is generous. It should be noted that for OECD countries for which data is available, about one third of staff costs are for non-academic personnel, so if the cost ratio of each academic to non academic staff member were on average at least 5:1, the same result might apply in Brazil.

In addition, Brazilian federal universities' costs reflect the country's very generous pension provisions: retirement after 20 to 25 years at 100% salary, and pensions which are adjusted in line with pay rates for serving staff. In many other countries, pension payments do not appear as an explicit cost of institutions such as universities: they may appear indirectly in the form of Social Security payments (whether by employers or employees) and pensions are often paid directly by the government or Social Security Administration. However if pensions are actuarially "underfunded" by government-run, pay-as-you-go scheme, then the true personnel costs (inclusive of pensions) will be underestimated by counting social security payments. Where pensions are properly (i.e. actuarially) funded, then pension costs will ultimately be included in institutional budgets, whether as part of gross salaries or as an employer's contribution (in such cases the pensions' payments are a cost to the pension fund, and not to the employing institution). A problem with unfunded pensions paid directly through the employing institution is that changes in the pension bill may react back on the institution's current operations, sometimes by restrictions on the filling of vacant staff posts as a short-term savings measure. Actuarially-funded pensions (and to a limited extent pensions which though not fully funded but are paid via a central Social Security Administration) remove this source of instability and give the institution more direct control over its payroll costs.

There is therefore no basis in principle for arguing that Brazilian higher education costs are exaggerated in comparison with other countries because of the inclusion of pensions. A possible exception in the future, if Brazil implements a scheme to make federal pensions at least in part funded by social security contributions, might arise through double-counting: if pension contributions are counted as a cost, and if in addition pension payments made by the employing institution (and financed by the federal government) are also counted as a cost, then the correct procedure would be to deduct the pension element of social security contributions, and measure only the *net* pensions cost.

[14] For example, is restaurant/canteen staff included? What are the relative costs of employing non-academic and academic staff? If Brazilian skill differentials are high, then high non-academic staffing levels might not carry such serious cost implications.

Unit Costs by Fields of Study: The per-student costs reported in Table 3 are calculated on the basis of dividing total institutional costs by the number of students. This measure is obviously a crude one in that all costs are implicitly assigned to teaching and research and not to research or other "outputs". International measures of unit costs are almost invariably simplified because there is no internationally agreed uniform methodology of assigning costs to activities. Individual national studies are however useful for comparing teaching and research costs and costs by field of study within national systems of education. For Brazil, N. Cardoso Amaral has estimated the structure of costs within the federal university system in 1997.[15] His estimates of global and per student costs are summarized in Table 13:

[15] Amaral, Nelson Cardoso. 1998. *Gestão Financeira de Universidades Públicas*. Instituto Andifes, Brasília.

Table 13. Cost Structure of Federal Universities: Estimates for 1997

Global Costs.		
	R$m	US$m
Personnel	5026.6	4675.9
Other Current	1070.4	995.7
Capital, etc	109.9	102.2
TOTAL	6206.9	5773.9
Minus Pensions	-1478.3	-1375.2
Minus *Precatórios*	-371.9	-346.0
Minus Hospitals (Net)	-424.3	-394.7
Net Educational Costs	3932.4	3658.0
% Teaching	71.1	66.1
% Research and Other	28.9	26.9
Net Teaching Costs	2794.1	2599.2
Unit (per Student Costs)		
Equiv. Students (FTE)	509689	
Teaching Cost per FTE (Amaral Estimate)	R$ 5482	US$ 5099
Cost per FTE Net of Hospitals	R$ 11345	US$ 10553
(FT)Undergraduate + Graduate Students	423514	
Global Cost per FT Student	R$ 14656	US$ 13633
Net of Hospital Cost per (FT) Student	R$ 13654	US$ 12701

Notes: FTE students are "fulltime equivalents" as calculated by Amaral, p15. Most (full-time) undergraduates are counted as 1 FTE; post graduate students have a weighting of >1; part-time students a weighting of <1. FT means actual full-time students. Based on February 1999 exchange rates.
Source: Nelson Cardoso Amaral, op. cit.

Overall, the deductions from costs for hospitals is warranted (provided that associated medical students are not counted either), but deduction of the cost of pensions and *precatórios*[16] is not appropriate, for reasons mentioned in the preceding sub-section. For purposes of international comparison, the global cost figure, while not conceptually the best, is the only one for which data is widely available. In addition there are post-graduate research costs incurred by CAPES, which may not be fully accounted for in Table 13, and which would increase the global unit-cost numbers.

Amaral has also provided some cost-per-student estimates by broad fields of study. These are shown in Table 14. Science and Engineering (i.e. Laboratory and Workshop) fields are 20% to 25% more costly than Social Sciences, Humanities and Law. Agriculture and Health are the most expensive. This is in line with international experience in terms of ranking, but the percentage differences between fields appear to be low.

Table 14. Teaching Cost per Student by Field of Study: Federal Universities (1997)

FIELD OF STUDY	R$	US$
Exact Sciences	3567	3319
Biological Sciences	3541	3294
Engineering	3507	3259
Health Sciences	6137	5709
Agricultural Sciences	5522	5137
Applied Social Sciences	2942	2737
Human Sciences	2970	2763
Languages, Arts, Letters	2790	2595

Note: These costs exclude pensions, precatórios, research costs, and these are on an FTE basis. Including these items and calculating on an actual per student basis would (approximately) double the estimated costs.
Source: Nelson Cardoso Amaral, op cit., p.26

Governance and Management of Federal Universities: Our main focus will be on management, budgeting and planning within institutions. While the focus of attention is mainly on federal universities, several of the comments about strengthening management structures may also apply to state and private institutions. Academic management and academic autonomy, while of paramount importance, are mentioned only briefly.

[16] *Precatórios* are awards made by the courts to university staff who has sued the authorities on constitutional or other legal grounds. They are in reality delayed salary payments.

Brazilian federal universities enjoy very limited financial and managerial autonomy for three main reasons: i) the constitutional protection given to staff, who formally speaking, are federal civil servants, and who account for about 90% of all costs; ii) detailed line-item controls on non-personnel expenditures by the ministry; and iii) very limited power to generate revenue from tuition fees (the "specialization" courses being the main exception), and limited opportunities to generate revenues from other sources.

Even if staff privileges continue to be protected, there should still in principle be discretion in filling vacancies: the availability of retirement on 100% pensions after 25 years of service should ensure a rate of staff turnover of at least 4% per year. If there are reforms which enable new hires to be given significantly less protected lifetime conditions of employment, the scope for institutional decisions on allocation of staff resources should increase significantly over time. The problem is that administrative and managerial structures, which suit the existing state of the world may not be in a position to take advantages of opportunities opened up by future civil service reforms.

Financing and Budgeting: It is now generally recognised that complex organisations such as universities cannot be micro-managed from outside. Reforms elsewhere, and recognized good practice indicate that the following features are to be expected[17]: a) government aid should take the form of block grants with a high degree of discretion left to the institution as to their detailed allocation; b) revenues generated by institutions from whatever source should constitute a net addition to total resources: i.e. they should net be offset by reductions in government block grants; c) within institutions similar principles apply: budgetary devolution down to the school or faculty level, and in turn down to departmental level; and d) a recognition that budgetary discretion brings a very high degree of responsibility, accountability and transparency.

[17] For a more comprehensive analysis of these issues, see Quentin Thompson. 1998. "Trends in the Governance and Management of Higher Education". LCSHD Paper Series No. 33. World Bank, Washington, D.C.

Box 4. Funding Higher Education in England: How the HEFCE (Higher Education Funding Council for England) Allocates its Funds

In 1996-97 the Government of England, with extensive consultation with the higher education sector, undertook a review of funding methods for teaching and research. This resulted in the design of new funding methods for both research and teaching, which were used for the first time in 1996-97 and 1998-99 respectively. Now each year, the HEFCE advises the Secretary of State for Education and Employment on the funding needs for higher education in England and is responsible for distributing the money, within broad policy guidelines provided by the Secretary of State. During the 1998-99 academic year, 135 higher education institutions (HEIs), and 72 further education colleges (FECs) that provided higher education courses were receiving funding. The HEFCE is open about their allocation methods and policies, ensures that they are easy to understand, and publishes the data on which calculations are based, so that institutions can check the outcomes each year. The formulae used to determine how most of the money is allocated between institutions take into account certain factors, such as the number and type of students, the subjects taught, and the amount and quality of research undertaken. Funding is provided in the form of a block grant which institutions are free to allocate according to their priorities within the broad guidelines of the HEFCE. Institutions are accountable to the Council, and ultimately to Parliament, for the way they use Council funds. In addition to HEFCE funds, institutions are free to raise money from other resources which allows them to pursue activities alongside those for which they receive Council funds.

The HEFCE is the largest single source of income for the higher education sector. After Council grants, tuition fees are usually the only other major source of funding. The fee level has been set at £1,000 per student per year, which represents about a quarter of the average cost of tuition. Fees are means tested so that students from poorer families are exempt, or pay only a proportion.

The old funding method provided stability for institutions, but in some cases maintained differing levels of funding for different institutions for historical rather than educational reasons. The new method funds similar activities at similar rates for all HEIs, and ensures that any variations are for explicit and justifiable reasons. In addition, the new method supports the government policy to increase opportunities for a wide range of people to enter higher education. It is hoped that the new funding method will: i) increase opportunities; ii) maintain and enhance quality; iii) support diversity; iv) encourage efficiency in the use of public funding; and v) provide stability in funding from year to year.

Source: http://www.niss.ac.uk/education/hefce/pub98/98_67.html

The method by which government block grants are determined is an important issue, and is connected with other aspects of institutional and student financing, particularly the question of tuition fees. In addition, any funding formula should also take into account aspects of cost structures, which are specific to individual institutions. A necessary first step would be to establish some system-wide unit cost norms for students in different broad fields of study: (social sciences, laboratory-based sciences, engineering, languages, etc), and to determine block grants to institutions accordingly. These grants could cover 100% of costs (zero tuition) or a lesser percentage depending on tuition fee policy. Clearly tuition fee levels in public sector institutions are seen as a federal government policy decision, to be integrated with decisions on the level of block grants.

Institutional financing systems ought to (a) be seen as equitable as between institutions, and (b) give appropriate incentives for internal efficiency. One way of ensuring this is through a simple funding formula. Initially this might be input-based (on say numbers of students) and refinements could be added later to bring output indicators

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into the formula.[18] A related feature of a funding formula is that it be based on *system-wide* criteria: therefore, institutions, which have higher costs than the norm, are penalized, and those who are efficient have more resources to re-deploy.[19]

Academic autonomy should be enhanced under a more decentralized system of resource management. At present, the lack of financial powers means that while institutions may propose new courses or other developments, the ministry through its financial powers can have an effective veto. Institutions do not have the opportunity to assess alternative developments and to trade-off between them. In such a situation, academic autonomy is diminished.

There is therefore a strong case for some general changes in management within the federal university system. International experience shows that these changes will demand a very high level of management expertise within institutions, and new arrangements to ensure that, while professional managerial expertise is able to exercise its function, academic considerations, decided on by the academic community, continue to set the basic aims and objectives of universities. An investment program in university management and management information systems is an essential pre-requisite of any effective reform.

Dropout Time Taken to Graduate: A previous study (Paul and Wolff) has estimated that the time taken to produce a graduate varies significantly between types of universities. The results are summarized in Table 15:

[18] Formulas which are input-based are clearly second best to output based formulas, but they are generally more complex and difficult to implement. However they can offer very clear advantages over ad hoc incremental allocations based on no discernible criteria.

[19] This would go a long way towards meeting one of the objections which have been raised to cost-recovery financing, which sets tuition fees at some predetermined fraction of costs. Institutions might then have an incentive to raise funds privately and use them to increase their cost base, thus enabling them to increase tuition fees further. See Hauptman, Arthur. 1998. "Accommodating the Growing Demand for Higher Education in Brazil: A Role for the Federal Universities?". LSCHD Paper No. 30. World Bank, Washington, D.C., pp. 6 and 7. If the cost base is determined by the behavior of the system as a whole, then institutions which get out of line will be penalized, especially if the ministry in setting fees at x% of estimated tuition costs, also sets the fees in *Real* terms, and setting out in detail the basis for its calculation of unit costs in the system.

Table 15. Brazilian Universities: Time to Produce a Graduate (Years)

TYPE OF INSTITUTION	TIME (years)
Federal Universities	6.1
State Universities	5.0
Municipal Universities	4.1
Secular Private Universities	4.4
Religious Universities	4.8
Mean (Also includes isolated Faculties)	4.5

Source: Paul, J.J., and Wolff, L. 1992. "The Economics of Higher Education in Brazil". Human Resources Division World Bank, Washington, D.C.

Mean length to graduation throughout the higher education system is 4.5 years, but is significantly higher in federal universities (6.1 years) and is lowest in municipal universities (4.1 years). Assuming that the calculations in Table 4 take account of both repetition and dropout, this would indicate a relatively high rate of throughput, given that the minimum nominal length of a degree program is 4 years. Federal universities may appear to be the least efficient, but they have more 5 and 6 year programs (in fields such as Medicine) than the others. Paul and Wolff note that charging tuition fees provides an incentive for students in the private sector to minimize time to graduation, but they also note that if private institutions were to lower program quality in order to avoid discouraging fee-paying students, then the reported time-to-completion differences may understate true efficiency differentials. In addition, if the *quality* of student intake is higher in the federal universities, the understatement of efficiency in that sector may also be significant.

Equity

Equity can mean different things, for example: i) a reasonable degree of equality of opportunity to participate in higher education, and ii) a reasonable and fair balance between paying the costs and obtaining the benefits from higher education.

There are some dimensions of (ii) which are beyond the scope of this paper, such as the spatial or regional dimension, which is important in Brazil. The main focus will be on the balance between benefits and costs, and on the relation between (family) income and access to higher education. A further limitation on the scope of the analysis is that access to higher education depends very much on policies at the lower levels of the system, and even on early childhood education. Important as these topics are, they are not pursued here.

The Distribution of Higher Education: The *Exame Nacional de Cursos*, more commonly known as the *Provão* examination, taken by the majority of graduates from all types of universities, includes a questionnaire covering social and economic background. The 1998 *Provão* has information on family income of graduates, which enables a comparison with the structure of incomes in general. This is summarized in Table 16.

Table 16. Distribution of Graduates by Family Income Level

Income MS (Minimum Salaries per Month)	Percentage of Graduates	Percentage of Population
< 3 M S.	5.1	39.5
>3 and < 10 M S.	29.2	39.1
>10 and < 20 M S.	29.2	12.8
> 20 M S.	36.2	8.6
(of which between 20 and 50 M. S).	*(26.7)*	*(7.0)**
(greater than 50 M. S).	*(9.9)*	*(1.6)**

*Notes: The original income data includes 3.7% of households with no income, which includes families depending on welfare: these were all assigned to the <3 minimum salaries group. The 2.3% giving no information were proportionately re-allocated to the other income groups. The population income data has no category >50MS, and the numbers marked * are the author's estimates. The graduate data refers to 1998, and the income data to 1996, but as both are denominated in minimum salary terms (R$120 in 1996 and R$130 in 1998) they should be closely comparable.*

Sources: Graduate percentages: MEC. 1999. Exame Nacional de Cursos 1998: Questionario Pesquisa, Sintese Brasil, Brasilia. Table 5. Population percentages, IBGE statistics from the National Household Survey: Pesquisa Nacional por Amostra de Domicilios.

Overall, 5% of graduates come from the lowest two quintiles (39.5%) of the population with 3 minimum salaries or less. The next two quintiles (39.1%; 3 to 10 MS.) supply 29.2% of graduates and those with 10 or more minimum salaries (just over a quintile) account for 65.4% of graduates. Information on the highest income group (>50 MS) has been estimated separately: the top one and a half percent of households account for about 10% of graduates.[20]

Student Aid: Grants, Scholarships and Loans: The highly uneven distribution of higher education enrollments by income group means that targeted student aid could have

[20] In an earlier study, Paul, J.J. and Wolff, L. 1992. *The Economics of Higher Education in Brazil*. Human Resources Division. Technical Department. World Bank, Washington, D.C., reported a preliminary study in which there was an apparently much more equal distribution for 1989 among federal university students, with 18% coming from the <3 M.S. category and 24% from the >20. However there are differences in coverage, underlying income distribution, and the real value of the minimum salary which cloud the picture. For example in 1989 10% of households had incomes >10 MS. whereas the corresponding number in 1996 was 21.4% of households.

a potentially very large effect on life chances. Traditionally Brazil has relied on student loans, rather than stipends or grants, although the high degree of subsidy in many past loan schemes transformed them into *de facto* grants to a considerable extent. As a matter of principle, grants are more appropriately assigned to a strong redistribution role and should be targeted to poorer students who could not otherwise attend college. Loans are less critical in terms of income targeting, especially if the subsidy element is low, in which case they may be targeted on the basis of student ability. Given that Brazil does not have the basis for a reliable and consistent national means test, the scope for grants or stipends at the federal level is extremely limited.

Some recently available data relates to all forms of student support, and a summary is given in the following table (Table 17):

Table 17. Numbers of Students With Aid, by Type and Source, 1999

Type of Support\Origin of Funds	Educational Institutions	Other	TOTAL
Mainly Work Related *	48,229	38,237	86,466
Credit (Loans)	27,891	95,907	123,798
Mainly Discounts**	171,296	20,519	191,815
TOTAL	247,416	154,663	402,079

*Notes: * Includes Estagio, Extensão, Trabalho, Iniciacão (study grants, some of which go to university Departments for lab equipment), Monotoria. ** These refer to discounts on standard tuition fees granted mainly by private institutions.*
Source: Correspondences from S. Schwartzman.

It is clear that institutions themselves are the source of a significant amount of student aid.[21] Loans come predominantly (77% of recipients) from the banking system; the work-related category is evenly divided between inside and outside sources; and the mainly discount category is in the case of 89% of recipients from educational, mainly fee-paying private and municipal, institutions. The result of this high incidence of institution-based aid, principally in the form of discounts is that private sector students are more likely to receive aid than those in the federal and state systems. The details are in Table 8 earlier in the paper.

[21] Exactly how much is not clear because the date refers to numbers of students and not to the amount of aid per student.

At the federal and state universities (largely tuition-free), between 10% and 13.5% of students get some form of aid (usually non-credit). In the private sector, about 29% of students in universities receive aid, and about 17.5% of students in private non-university institutions receive aid. It would seem that most of them receive discounts rather than loans. Discounts are essentially a local, institutional form of aid, which though selective, does not usually rely on formal means testing based on income tax returns. As such it has a potentially important role in the Brazilian system, especially if a policy of tuition fees in the public sector is developed.

Student Loan Schemes in Brazil: Since 1976 there have been three successive federal student loan schemes (*Programas de Crédito Educativo* - PCE). All of them have involved the Federal Savings Bank (*Caixa Economica Federal* - CEF), and all have encountered problems due the failure to allow sufficiently for inflation. Generally the programs gave loans to students at either fixed nominal rates of interest which were lower than subsequent inflation, or at interest rates which were only partly indexed to inflation, and the principal sum was fixed in nominal terms.[22] During the first phase PCE (1976-83) the effective rate of subsidy was 89.7%; during the second (1983-89) it was 55.4%, and during the third between 1989 and 1992 it had declined to 8%. A second problem has been relatively high default rates, partly because the efficiency of pursuing defaulters has not been high. It is now planned to re-launch a new PCE scheme, this time with more private sector participation.

The general practice has been to grant loans to cover tuition rather than subsistence expenses. This has meant that students in the private sector institutions are the main beneficiaries (as well as the institutions themselves). Means testing has not been very effective, and there are doubts as to whether loans have reached the income groups for which they were intended. If future loan schemes can be made to operate without subsidy, then the lack of efficient means-testing is not as great a problem, at least to the extent that one is not giving subsidized credit to the well-off. However loans at commercial rates may be a deterrent to poor students, as there are well-known risks which bear more heavily on those without significant family wealth. There are two possible solutions to this (i) an income-contingent loan scheme, whereby payments are linked to future earnings, and where high earners cross-subsidize low earners, and (ii) combining loans with highly selective grants or scholarships for poor students, which might mitigate the risks as well as provide much-needed support for subsistence.

An income-contingent loan scheme is generally operated through the income tax system (or at least relies on comprehensive information from the tax system), and countries where it has been implemented or seriously contemplated (such as Australia, New Zealand, the UK) have highly developed income tax systems, with high compliance rates. This makes grants and scholarships a more important and immediate type of supplement to ordinary loans.

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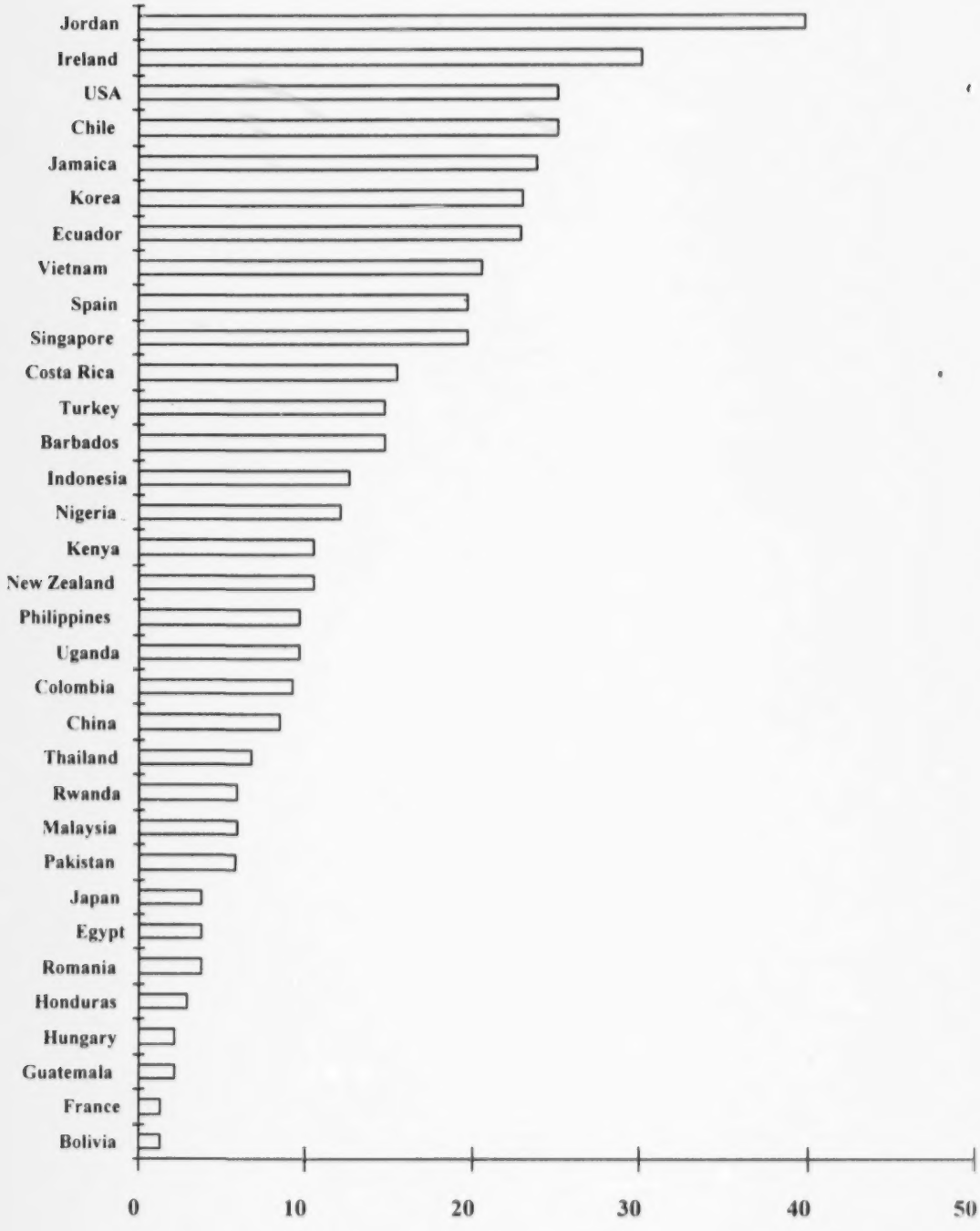
[22] A description of the PCE experience can be found in: World Bank. 1993. "Brazil: Higher Education Reform". Report No. 12366-BR. Population and Human Resource Division. World Bank, Washington, D.C., pp. 27-30.

At present students who become eligible for PCE loans are eligible for a fixed amount. There is no graduated scale of loan eligibility. This "all or nothing" situation is not desirable, but it is probably a consequence of not having the reliable and objective indicators of income of means generally.

Tuition Fees: Unlike many other countries, Brazil's public sector institutions, and in particular the federal universities, do not charge tuition fees, other than for a relatively small number of "specialization" courses.

Graph 12. Fees in Budget of Public Universities



Source: World Bank estimates

The case for extensive regulation of private (or indeed all) institutions is primarily a *qualitative* one: individual consumers do not have sufficient information to make optimal choices in the case of education. The case for *quantitative* regulation (in this case of tuition fee rates) is much weaker. In the short term there is a legitimate fear that de-regulated rates might increase significantly.[23] However in the longer term, maximum expansion of the system requires a private sector institutions charge tuition fees, and these are subject to regulation by national relatively liberal approach. In addition there is the argument that developments in the area of tuition fees needs to be integrated with student aid policy[24].

If one (i) recognizes that the tuition fee and student aid issues should be linked, and (ii) that Brazil has a high degree of institutionally-based aid in the form of discounting, this suggests that liberalization of the controls over tuition fees might be linked with increased institutional provision for discounts and scholarships for living expenses. What is required is an approach which is simple, transparent, consistent as between sectors, and which preserves appropriate incentives. One possibility, which in addition would have the advantage of building on existing practices would be to require all institutions to earmark a certain proportion of their tuition fee revenue for student aid. The basis for the calculation might be potential tuition fee income assuming all students were charged the full rate: a certain percentage would have to be set aside for student aid, whether in the form of discounts, cash stipends or scholarships, and these would have to be distributed according to prior criteria, with oversight by a committee which included student representation. It would be possible to make the system progressive in respect of fees: the proportion to be earmarked might be for example 25% of fees which were less than 2,000 Reais per student, 35% of fees between R$2,000 and 3,000, and 45% on any fees in excess of R$3,000, etc.

Policies on student aid are important in equity terms. However, there is also an efficiency aspect: this stems mainly from the need to enable enrollment to expand while holding down costs, and in particular costs which fall on the federal or state budgets. Developing loan schemes, which have zero or minimal subsidies, as well as a variety of institution-based discounts and scholarships, could allow enrollments to expand, equality of opportunity to be enhanced, and at the same time make minimal demands on government budgets.

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[23] The high private rate of return of 22% to Brazilian higher education reported for 1995 by Donald Winkler, *op cit.*, would indicate that there is scope from transferring some economic rents from students to providers.

[24] see Arthur Hauptman, *op cit.*, p. 9.

Section Three. Strategies and Recommendations for Higher Education in Brazil[25]

Brazil has given considerable thought to the development and reform of its tertiary education system and has made significant progress in many important areas. This section of the report suggests further developments to progress already made by Brazil focusing on the strategic goals of access, quality, relevance and efficiency.

Improving Access

In the area of improved access, it is suggested that the government consider the following:

- Brazil has taken major steps to diversify the types of tertiary institutions and the delivery methods used as a means of improving access and enrollment. These include the promotion of university centers, the development of sequential courses, the offering of night classes, and the more recent development of remote teaching. *In order to continue to promote these means of tertiary education the government may find it useful to set timed targets as a way of monitoring and measuring the progress of each of these interventions in increasing access and* enrollments.

- *Providing further financial assistance to poorer students to enable them to afford the fees at private institutions as well as to offset some of the costs associated with attending public institutions might also serve to improve access and* enrollment. The uneven distribution of tertiary enrollments by income group means that highly targeted aid could have a major impact on who attends. In developing a student aid program/policy, it will be important to identify which segment(s) of the student population would be eligible for assistance and, based on enrollment targets, estimate the total amount of assistance which might be needed. An important aspect of any loan scheme would be that it was designed to have zero or minimal subsidies, coupled with a mix of institutionally based discounts and scholarships. This would expansion in enrollments, targeting of those most in need, and make minimal demands on the government coffers.

- Currently, coverage is about ten percent, significantly lower than other countries comparable to Brazil in size and dynamism. While the government wishes to improve this, at present, there is no specific target or time frame for the increase. *The government may want to set a broad* enrollment *target for 2005 and 2010.* According to the estimates made earlier in the report (see Table 11), if the government sets a gross enrollment rate of 15 percent for the year 2005, that would mean providing places for an additional 800,000 students. This does not seem unreasonable if one considers the large increase in the number of secondary school graduates anticipated. Nor would such an increase require a major increase

[25] This section is the contribution of Quentin Thompson in a 1999 report commissioned by the World Bank, entitled "Higher Education in Brazil".

in public expenditure, if efficiency gains are made in the public sector and the private sector continues to grow in response to demand.

Improving Quality

The government has taken major steps to improve the quality of tertiary education consisting of an exit exam, the *Provão*, site visits, and data collection by the INEP. To further develop a culture of quality in tertiary education:

- It will be important to *ensure that the Provão remains a flexible tool that changes with curricula developments rather than serve as a rigid guide to set curricula.* It is also important to maintain the expansion of PAIUB activities and the data collection by INEP in order to assure quality controls are in place to ensure institutions remain responsible while gaining various degrees of autonomy.

- *Institutions will need to be actively encouraged to develop more rigorous internal quality assurance mechanisms for themselves.* One way to accomplish this would be for the government to develop a type of audit of quality to review the effectiveness if the internal quality processes of an institution which, if satisfactory, would mean more relaxed quality assessment by government, a signal to institutions that they were performing the task of assessment well.

Improving Relevance

It has always been a concern of countries that its tertiary system serves the needs of society and the economy.

- Brazil has taken a step in this direction by modifying its legal framework to allow greater *flexibility in curriculum content.* It is also important to seek information from employers on the skills and knowledge mix they need and to encourage them to participate in curriculum design.

- *Flexibility is needed in course structure* as well, for example, the major/minor concept used in the US in which students exercise some guided choice over the modules they study. This approach may have to be actively developed with the institutions since it does not fit with the academic tradition of Brazilian universities.

- *Institutions should try to identify both national and regional/local needs which they think they are able to meet or have a comparative advantage in over other institutions, and offer appropriate study programs.* Each institution has any number of stakeholders - the local labor market which it serves, the students who apply and attend, and the local or regional development needs which can be identified through outreach to community and regional organizations. Once the needs of the various groups have been identified, institutions should respond to them by prioritizing them and providing courses and programs that meet the

demand. When institutions become more "consumer-oriented", there is the bonus of greater diversification in the system.

Improving Efficiency

Given Brazil's need to expand the system coupled with ever diminishing public resources, improvements in efficiency in the public sector is imperative.

- *The clearest inefficiency in the public tertiary system is the current civil service structure as it pertains to the hiring, firing, promotion, and reward structure of faculty, technical and administrative personnel.* Brazil will need to think carefully about reform measures if it wants to make operational, in a meaningful way, the principles set forth in the new legal framework.

- The new legal framework, developed and adopted by the government, indicates that Brazil is moving away from direct control of public tertiary education and is moving toward providing an enabling policy environment for institutions. *For institutional autonomy of this type to be meaningful, the government may want to consider implementing the following guidelines, which are considered international good practice*:

  a) provide public funds in the form of Block Grants allowing institutions to determine exact allocations;

  b) permit institutions to keep any revenue they generate without a reduction on the total amount of government funding;

  c) require accountability of institutions receiving public funds through: requiring institutions to produce a five year strategic plan and a one year operational plan (based on the government's overall national goals); require monitoring of the institutional plan; require participation in accreditation/re-accreditation processes, providing annual budgets that are transparent, and producing detailed annual reports of what has been achieved with the funds.

- There is a scope in the system to *increase efficiency in the use of the academic staff in public institutions, to increase the use of physical infrastructure through more intensive use, not only over the course of a day, but throughout the year, and to reduce drop out and failure rates* through improved teaching and increased relevance.

Annotated Selected Bibliography

Official Publications of Brazilian Government and Other Institutions

ABMES (Associação Brasileria de Mantenedoras de Ensino Superior). 1997. *Ensino Superior: Legislação Atualizada***. ABMES, Brasilia.

Provides the full text of all federal legislative and ministerial acts involving higher education since 1995. These include laws, decrees, resolutions, findings, and "portarias"). The full text of the National Education Law (Lei de Diretrizes e Bases de Educação). For reference only; the book provides no interpretation or analysis of the documents included. Because the texts are in the highly specialized language of legislation and decrees, the uninitiated may have difficulty interpreting their meaning and/or significance.

Corbucci, Paulo. 2000. O Ensino Superior Brasiliero na Década de 90. pp. 105-109. In: IPEA (Instituto de Pesquisa Econômica Aplicada) *Políticas Sociais. Acompanhamento e Análise*. Ministério do Planejamento, Orçamento e Gestão, Brasilia.

Overview of higher education in the 1990s, covering enrollment, coverage of 18-24 age cohort, graduation, and vestibular exam. Concludes with statistical overview of higher education indicators 1990-1999.

INEP. 2000. *Evolução do Ensino Superior, 1980-1998*. Ministério de Educação e do Desporto (MEC), Brasilia.

Provides longitudinal statistical information on higher education institutions, students, faculty, technical and administrative personnel, area or program of study, applicants, and graduates. They data are disaggregated in according to region, type of institution, program of study, etc.

INEP. 2001. *Exame Nacional de Cursos: Relatório Sintese 2000*. MEC, Brasilia.

Provides a synopsis of results and related information from the National Higher Education Exam ("Exame Nacional de Cursos", or "Provão"). Contains information on purpose and history of the exam, the results according to discipline, and characteristic of the graduating students who took it.

INEP. 1998. *Avaliação de Concluintes do Ensino Médio: Relatório Preliminar*. MEC, Brasilia.

A preliminary report from a large survey of secondary school graduates from nine states. Over 400,000 students took tests in a variety of subjects, and responded to questionnaires. The report contains information on age, family and personal income, characteristics of parents, reasons for attending/finishing school, and plans for further study. Some limited analysis of student performance in relation to these variables is included. This is a preliminary report.

INEP. 1998. *Diretrizes Curriculares: Propostas das Comissões do Exame Nacional de Cursos.* MEC, Brasilia.

This publication presents the suggested curriculum guidelines for 10 programs of study ("cursos"): Administration; Chemical, Civil, and Electrical Engineering; Humanities; Dentistry; Journalism; Law; Mathematics; and Veterinary Medicine. The proposals, which do not follow a standard format, generally treat the types of skills and competencies that graduates should have and the basics organization of instruction.

INEP. 1998. *Plano Nacional de Educação 1998.* MEC, Brasilia.

The government's official statement of its goals for the entire education sector. Contains a chapter devoted to higher education. (The government is required to publish such plans for a number of politically important areas, such as education, health, etc.). The document is useful as an indicator of the government's view of the most urgent problems within the sector, and potential strategies for addressing the same. Policy prescriptions are quite general and lacking in detail.

INEP. 2000. *Sinopse Estadística do Ensino Superior Graduação 1999.* MEC, Brasilia.

Provides longitudinal statistical information on higher education institutions, students, faculty, technical and administrative personnel, area or program of study, applicants, and graduates. They data are disaggregated in according to region, type of institution, program of study, etc.

OECD. 1998 –2001. *Education at a Glance: OECD Indicators.* OECD, Paris.

UNESCO. 1997 – 2001. *Statistical Yearbook.* UNESCO, Paris.

Descriptive, Analytical, and Policy-focused Sources and Documents

Baeta Neves, C.E. 1995. "Ensino Superior Privado no Rio Grande do Sul: A Experiência das Universidades Comunitárias". Núcleo de Pesquisas sobre Ensino Superior (NUPES). Universidade de São Paulo, São Paulo.

Looks at the "community universities" as a distinctive element in the development of private higher education in Rio Grande do Sul. Examines the socio-cultural

conditions, which gave rise to a significant number of community universities in the state, the uniqueness of the educational mission, and other defining characteristics of these institutions. Summarizes the discussion of public support to these private institutions, including the debate prior to the 1988 constitution. Highlights some of the ways in which inflexibility on the part of policy may endanger their consolidation. The lessons and experience of community universities are quite relevant to general reform of the system and bear close analysis; this report is a very good starting point.

Birdsall, N., and Sabot, R. (eds.). 1996. *Opportunity Foregone: Education in Brazil.* Inter-American Development Bank, Washington, D.C.

This book is a series of studies, which provide information, data, and quantitative results on secondary education in Brazil. The idea for the book grew out of the symposium *Education, Economic Growth and Inequality in Brazil*, held in Rio de Janeiro from March 24-27, 1991. The book's three sections are divided into background and setting, education and earnings, and education and inequality. The studies document the ways in which the development of the basic education system in has lagged behind that of comparable countries. The book emphasized the importance of increasing efficiency of the system of basic education. This is an important collection of essays in view of the important link between basic and higher education.

Blom, Andreas, Holm-Nielsen, Lauritz, and Verner, Dorte. 2001. "Education, Earnings, and Inequality in Brazil 1982-1998: Implications for Education Policy". World Bank, Washington, D.C.

The educational attainment of the Brazilian labor force gradually expanded during the last two decades. Concurrently, a series of economic structural adjustment policies have been pursued. The paper investigates how these two simultaneous advances have altered the relationship between labor market earnings and education. The authors find that the remuneration of education fundamentally changed from 1982 to 1998. Returns to tertiary education increased sharply while returns to primary and lower secondary education dropped, 26 and 35 percent, respectively. Furthermore, the marginal reduction in wage inequality, which took place from 1982 to 1998, primarily was linked to a reduction in returns to schooling and only secondarily linked to a more equitable distribution of schooling. The findings suggest that the available supply of highly skilled labor inadequately meets demand. Therefore, policy action aiming at increasing access and completion of tertiary education is desirable. An increased supply would improve prospects for both economic growth and reductions in wage inequality.

Durham, E. 1998. "Uma Política Para O Ensino Superior Brasileiro: Diagnóstico e Proposta". NUPES. Universidade de São Paulo, São Paulo.

Most up-to-date analysis is available of the current situation of Brazilian higher education. The paper begins with an analysis of the 1968 reforms and chronicles the exhaustion of the adopted model with respect equity, stagnation in enrollment, public sector financing, expansion and diversification of the system, and the role of research. The second half deal with the principle issues for consideration in policy reform: institutional autonomy, evaluation and accreditation, graduate education, new educational technologies, graduate education, finance, diversification and expansion of the system.

Gaetani, F., and Schwartzman, J. 1991. "Indicadores de Produtividade nas Universidades Federais". NUPES. Universidade de São Paulo, São Paulo.

The paper analyzes and explores the reasons why the most commonly used indicators of academic productivity are inadequate assessment tools in the Brazilian context. Explains the heterogeneity among the federal institutions of higher education and their implications for comparability. The paper presents calculations, which control for additional costs borne by federal universities. According to these calculations, per-student instruction costs at federal universities are equal to or less than comparable costs at USP and at high-quality North American institutions.

Paredes, A. 1994. "A Evasão do Tereiro Grau em Curitiba". NUPES. Universidade de São Paulo, São Paulo.

A study of drop out in two universities in Curitiba (the Federal University of Paraná and PUC Paraná) finds several reasons for the phenomenon: financial difficulties; simultaneous enrollment in more than one degree program; wrong choice of degree program due to inadequate prior information; poor quality of instruction; marriage or acquisition of adult responsibilities; poor secondary school preparation; abandonment of a second choice program once an opportunity in the first choice area becomes available; perceived lack of job opportunities for graduates; immediate employment opportunities, especially civil service or other stable employment. The studies had three unexpected findings: a) actual rate of drop out is higher than the perceived rate; b) lack of a clear estimate of demand distorts course offerings and planning; c) while the instances of drop out are high, close to two-thirds of "drop-outs" will actually eventually receive a degree from a higher education institution.

Plank., D. 1996. *The Means of Our Salvation: Public Education in Brazil, 1930-95.* Westview Press, New York.

The book elaborates upon why Brazil is lagging behind in educational development, the role of the political economy of development, background information on Brazilian education, the differences between public and private interests, policy, inequality, and the reforms required. The book analyzes the extent

to which the serious problems in basic education are attributable to a political system that favors private over public interests. The book examines the historical impotence of policy debates with respect to changing a status quo, which has focused on the control of resources rather than on accomplishing public purposes. The author asserts that lasting improvement in Brazil's public schools will require broader participation in educational governance and policy making.

Schwartzman, J. 1995. "A Folha de Pagamento das Universidades Federais". NUPES. Universidade de São Paulo, São Paulo.

Examines the distorted incentives created by a series of laws governing salaries and retirement policy for university employees. Focuses on the way corporate interests have created a compensation policy that either permits or rewards practically everything but dedicating oneself to full time teaching and/or research. This will be of interest to those unfamiliar with the extremely complex and distorted working of salaries and retirement systems in Brazil.

Schwartzman, S. and Balbachevsky, E. 1996. "The Academic Profession in Brazil", In: Altbach, P., *The International Academic Profession: Portraits of Fourteen Countries*. The Carnegie Foundation for the Advancement of Teaching, Princeton, New Jersey.

Provides a comprehensive overview of the profession within the context of the development of higher education in Brazil. Covers issues such as academic preparation of faculty, benefits and retirement practices, working conditions, habits, responsibilities, and outputs, socio-economic background, gender considerations, as well as perceptions of the academic community from outside. Governance and attitudes of professors toward their work are given special attention.

Schwartzman, S. "Brazil". Entry in the International Encyclopedia of Higher Education.

Summarizes the historical development of institutions of higher education from colonial times to the present. Traces historical influences on the organization of institutions. Includes basic information on governance, administration, finance, teaching, learning, research, and the career paths of academics. Provides helpful (albeit condensed) information on the thinking that guided policy since the 1960's, but does not include the recent changes/reforms instituted under the new National Education Law. A good overview piece for those unfamiliar with the Brazilian system.

Velloso, J. 1994. "Higher Education In Brazil: Trends And Recent Developments In Resource Allocation Policies". IIEP, Paris.

Many policy issues concerning higher education have come forth over the years in Brazil. This paper presents and analyses the trends and the recent development in resource allocation policies for higher education in Brazil. It briefly explains the situation in the public and private colleges with regard to resource allocation, autonomy, efficiency, and trends pertaining to tuition, privatization, and market funding.

World Bank. 1993. "Brazil: Higher Education Reform". World Bank. Washington, D.C.

Official ESW (Economic and Sector Work) for the sub-section. Contains a thorough analysis of, and policy prescriptions for the situation at the beginning of the 1990's. Consolidates much of the existing research up to 1992, and includes original analysis of costs. In addition to a full description of the system, the report includes chapters on the issues in HE, principles of reform, proposed reforms, and the financial and other implications of reform.

**Texts whose titles appear here in Portuguese are available only in Portuguese unless otherwise noted

Part II

Annexes

Annex 1:
Higher Education in Brazil: The Stakeholders
by Simon Schwartzman

The Approach

The main dimensions, features, and problems of Brazilian higher education are well known, thanks to a significant volume of previous research condensed in the paper titled *Higher Education Sector Assessment* prepared for this conference: institutional diversification; some surprisingly good institutions, course programs, and research departments, and many others predictably bad; the size of the private system; problems of equity, quality and relevance; administrative and management issues; the questions of costs and efficiency in the use of public resources. More controversial, but also well known, are the proposals to solve these problems: change the institutional framework, change the way the course programs are organized, increase enrollment in the public sector, charge tuition, establish institutional systems of evaluation, increase (or decrease?) the regulatory power of the central government upon the private sector, and others.

It is not enough to know the facts and to suggest ideal solutions. It is also necessary to have the power to implement them. Brazil, like the United States, is a decentralized democracy, and the power of its national authorities to bring about changes is limited by legal restraints and the ability of organized groups and institutions to resist them. This is particularly true regarding higher education, where many actors belong to the intellectual elite and are highly articulated and vocal. Indeed, efforts to introduce major reforms in higher education systems in democratic societies often lead to failures, precisely for not taking into consideration the strength of the opposition.[1] It does not follow, however, that reforms implemented by authoritarian regimes are any better. Higher education institutions in democratic societies are usually better than those in authoritarian regimes. This is because academic institutions, to thrive, require an environment of freedom and individual initiative, which do not exist in authoritarian environments. Even the best conceived reforms could not possibly succeed if they are done by threatening and demoralizing the main participants of the reformed institutions. Academic institutions are not single-function organizations, and are not amenable to vertical, hierarchically imposed models and commands. The task of institutional reform in higher education is in large part a task of intellectual persuasion, which can only take place in open political systems. It would be naive, however, to imagine that well entrenched interest groups could simply be persuaded to approve changes that could be detrimental to them. Democracy is not only a matter of persuasion but also of alliances and disputes, and this applies also to higher education.

Questions of social and political power can be approached in different ways. A traditional and always part of the necessary approach is to look at the legal statutes and

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[1]For study of attempts at higher education reform in the early eighties, see Cerych and Sabatier, 1986; Kitamura, 1985; Premfors, 1983; Lane, 1983; Levy, 1980; Schwartzman, 1988; Wittrock, 1984.

established institutions: who is entitled to do what? Another traditional approach is to try to find out who has prestige, resources, and connections; and assume that those at the top are also the power-holders.[2] Political scientists often prefer to take specific issues, and see who in fact has participated in shaping specific policies.[3] In this text we will try to combine the first and third approaches, looking at the existing legal frameworks and institutions from the perspective of specific issues being handled through them.

The most visible cleavages, or fault lines, in Brazilian higher education are between the public and the private sectors, as well as between the good quality, research-oriented institutions and the low quality, teaching-only course programs. The usual tendency is to collapse the two, placing the free, high quality public institutions on one side and private and bad quality on the other. This correlation, however, is far from perfect, and obscures the need to deal with issues such as equity, diversity, access, financing, course contents, institutional formats, and the links between study and work, which would benefit from a less polarized perspective.

The conclusions we will reach are not surprising, but are certainly worrisome. They can be stated very simply by saying that those who have more power to produce change have more to gain in keeping the situation as it is, while those who could benefit more from change are those who can do less. This difference in strength is related to knowledge, information, and organization. Higher education reform should benefit persons who are unable to study in universities today, who can only go to second-rate institutions, or who would benefit from a more equitable use of public money. This broad public, however, knows very little about higher education, and does not get together to voice its interests, as opposed to those people who have developed their stakes in higher education as it is today and are afraid of changes that could threaten their existing or expected benefits. There are people in very significant sectors in higher education institutions who would like to change the situation and open up new horizons, mostly those with stronger professional commitment with an academic agenda, but they could not possibly move ahead without strong outside links and support. A secondary but important conclusion is that many problems of higher education in Brazil are related to operational procedures and practices, the ways these institutions are run and linked to public authorities, and the broader context of Brazilian public administration and social policies. This broader context, however, is either taken for granted or ignored, and seldom questioned.

The National Council of Education and the Expansion of the Private Sector

The principles, norms, and rules that shape Brazilian higher education are emboldened in the country's 1968 Higher Legislation Law (Federal Law 5540/68), the 1988 Constitution, the 1996 National Education Law *(Lei de Diretrizes e Bases)*, decrees and regulations issued by the federal administration and in the opinions (*pareceres*), and

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[2]This is the quasi-Marxist approach adopted by C. Wright Mills in his famous *The Power Elite*. (Mills, 1956).

[3]The classic reference is Robert Dahl, *Who Governs*? (Dahl, 1961).

resolutions of the National Council of Education, created in 1995 replacing the older (and similar) Federal Council of Education.

Brazil's first universities are from the mid-1930's, being preceded by a set of separated professional *faculties* in law, medicine, engineering, dentistry and pharmacy, dating from the earlier 19th century. A Federal Ministry of Education (and Health) was established in 1931,[4] followed by legislation creating the first universities and the National Council of Education (*Conselho Nacional de Educação*) integrated by independent citizens appointed for prolonged, fixed terms by the President to care about the contents and orientation of educational matters at all levels. In the mid-forties, the old Council changed its name from *National* to *Federal*, and returned to the previous name in 1995, with the Fernando Henrique Cardoso government.

The rationale behind this council, which has survived for more than sixty years, has been that the administration is not reliable or competent enough to take care of educational matters beyond simple routine matters or political expediency. In the thirties, the most influential members of the council represented the views and interests of the traditional professions, the Catholic Church, and the military. After the War, representatives from private institutions and the professions, mostly law and medicine, and more recently former rectors and high civil servants from the federal education system were included. The Council functions as a bureaucratic and quasi-judiciary body, deciding and setting jurisprudence from specific requests by higher education institutions, the Ministry, or from issues generated by its own initiative.[5] Most of the Council's work in the area of higher education has dealt with authorizations for the creation of new institutions and course programs, and in setting rules about curricula, the validity or diplomas, and so forth.

In practice, the Council has worked mostly as a regulatory body for the private sector, since it has had no influence in the creation of institutions by the federal government or the states, which depend on specific legislation. In its task to regulate the private sector, the Council has to accommodate pressures from: (i) the established professions, which are routinely against expansion of their careers; (ii) different sectors in private higher education, ranging from the Catholic and community-based institutions to the diploma mills, which press for leniency and less regulation; and (iii) representatives of public institutions, usually opposed to public subsidies to the private sector. In principle, decisions on the creation of new course programs and the expansion of offerings should be based on the quality of the institutions and some notion about the social need (*demanda social*) for specific careers. However, the Council never had an

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[4]For the educational reforms of the 1930's under strong influence of the Catholic Church, see Schwartzman, Bomeny and Costa, 1984.

[5]In the current arrangement, the Council is an advisory body to the Minister of Education. In the past, its independence regarding the executive power was always an issue of conflict and contention. See, for the first period, Miceli, 1968. The 1961 legislation, which defined its attributions until the recent changes, gave it the power to decide on the authorization and official recognition of higher education institutions in the private sector, among other functions (Bordignon, 1984).

organized and systematic mechanism to evaluate new or existing institutions, and was unable to make sure that the minimum requirements for the establishment of new course programs were real and kept through time; thus, no serious effort was ever made (assuming that it would be possible) to define what this *social need* for professional diplomas could be.[6] In the past, the Council alternated into being a facilitator or an obstacle to the expansion of private higher education. Between 1968 and 1976, when expansion peaked, the Council approved 73 percent of about 1,500 requests for new course programs. After 1977, the mood changed and until 1980 it approved only 10 percent of one thousand new requests.[7] To escape from the Council's control, the private institutions pulled together into federations and universities, which, once approved, are free to set their own rules and course programs. In 1996, about 50 percent of private enrollment were in some kind of university, against about 28 percent in 1968.[8]

The Council was abolished by the federal government in 1995 under the suspicion of corruption[9] and of having become too permissive in the creation of low quality, private universities, and was then replaced by a new National Council. The new Council is trying to develop more stringent standards and a mechanism for periodical reevaluation and renewal of the institutions' university status. It is not certain that it will succeed. One of its new members, a well-known intellectual close to the President, resigned in protest against the authorization of a new private university in São Paulo. The Council has also worked on questions related to distance learning, mechanisms for the evaluation and re-accreditation of institutions, changes in both the curricula of basic and secondary education to improve their relevance and flexibility, and more broadly in the implementation of the tenets of *the Lei de Diretrizes e Bases*.

On balance, it is possible to say that, except for a brief period in the late seventies, the Council has worked and still works as a rein to the expansion of private education in Brazil. The main justification for this stand has been a concern with a diffuse concept of quality, often associated with the worries of the traditional professions about the growing number of degree holders in those fields. For the health professions—medicine, dentistry and psychology—the creation of new course programs, even in universities, depends on the approval of a specific body, the National Council of Health (Presidential Decree 2306, August 19, 1997, article 16). The same happens with law course programs, which have to be approved by the layers' corporation, *Ordem dos Advogados do Brasil*. The corporation is concerned about the *inflation* of their labor market[10] (see box).

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[6]In recent years, this search for a definition of *social demand* seems to have been put aside.

[7]Data from Helena Maria Sant'Ana Sampaio, 1998, based on Bordignon, 1984.

[8]Data from Brasil, MEC/INEP/SEEC, 1997. *Evolução das Estatísticas do Ensino Superior no Brasil, 1980-1996*. MEC, Brasília.

[9]This suspicion was never demonstrated. The problem, however, is that given the Council's power to approve the creation of new institutions and course programs, private institutions often lobby the Council and its members for support, using different means of persuasion.

[10]Which is, of course, a potential if not actual source of patronage, this time by the professional corporations.

The *Jornal de Brasília* of September 22, 1998, included the following note:

Inflação Jurídica

O Conselho Federal da Ordem dos Advogados do Brasil já não esconde a sua preocupação com o excessivo número de Faculdades de Direito existentes no país. Segundo dados da entidade, o Brasil possui hoje cerca de 300 cursos de Direito, enquanto os Estados Unidos, com quase o dobro de nossa população, tem 170. Atualmente temos cerca de 230 mil alunos matriculados em todo o país. Nos últimos três anos foram apreciados pelo Conselho Federal em torno de quinhentos pedidos de abertura de novos cursos. Deste total, foram aprovados apenas dezesseis. "A OAB não vai permitir a inflação de cursos jurídicos no país", garante Reginaldo de Castro, presidente nacional da entidade.

(The comparison with the US fails to note that, in Brazil, there are no general education colleges, law is a *first tier* or undergraduate degree, and only a fraction of those graduated with a degree in law become practicing professionals.)

Today the Council works in harmony with the Executive and the Ministry of Education, and accepts the notion that higher education institutions should not be limited to a narrow concept of what a university should be. But the emphasis seems to be on the implementation of the minimum legal requirements for professors with graduate education and full-time contracts in the private sector, a formal requirement that most private institutions cannot fulfill and is generating serious strains. These requirements apply only to universities not the non-university course programs, which exist mostly in the private sector. However, they are a serious cause of concern for private institutions, which have sought and still seek university status to gain autonomy from the government's interference.

In 1985 the Presidential Commission for the Evaluation of Higher Education in Brazil proposed the extinction of the Federal Council of Education to be replaced by a Higher Education Commission, whose main task would be the establishment of a permanent system for evaluation of higher education institutions and course programs without its current bureaucratic and quasi-judicial attributions. The main problem with the existing Council, then and now, is not that it favors or limits the expansion of private education, or even that it may have been open to some kind of corruption or patronage. It is the way it operates, as a bureaucratic entity, with little legitimacy, limiting the flexibility of institutions and not allowing for an appropriate system of academic standards to develop.

In a recent paper, Burton Clark notes that "strategic management that focuses on the long-term strength and competence of a higher education system has to promote professional steerage and market steerage more than state steerage." Clark further adds

that "so-called strategic management needs to be reconnected to all the main means of institutions-building in higher education, including those that are remote to the touch of formal planning and top-down influence."[11] This is precisely the opposite of what the Council of Education has been doing throughout the years.[12]

The Legal Framework

The two main higher education laws in this century, from 1931 and 1968, were both issued by authoritarian governments. In 1931 the Ministry of Education of Getúlio Vargas and Francisco Campos, copied the legislation from Italy. Then they introduced the *Faculty of Philosophy, Sciences and Letters*, which was supposed to be the place where science and scholarship would be developed in universities side by side with the traditional professional schools. In practice, except at the University of São Paulo and some parts of the University of Rio de Janeiro (formerly *Universidade do Brasil*), the faculties of philosophy became a kind of teachers' college for secondary education. The 1968 legislation (Law 5,540/68) was proposed by the Executive and approved by a weakened Congress in a period of political repression against intellectuals and students by Brazil's military government, which was far from just an authoritarian legislation. Its main features were the creation of a second tier for graduate studies, the elimination of the traditional chair system, the creation of academic departments, and the notion of academic credits instead of serial course programs. In doing so, the 1968 legislation introduced several features of American higher education and, at least as an ideal, placed research and graduate education at the center of Brazilian higher education. Another important innovation of the 1968 legislation, with very important consequences, was the introduction of full-time employment for university academics, which barely existed until then.

The introduction of features of the American system in Brazilian higher education has been tried before in a few places (notably in Universidade de Minas Gerais and Universidade de Brasília, in the early sixties). This responded to the demands of a growing and vocal group of Brazilian scientists, many educated in France and in the US after the war, who were opposed to the way the traditional Brazilian universities were organized for its lack of research. These scientists gathered, in 1948, and formed the Brazilian Association for the Advancement of Science (Sociedade Brasileira para o Progresso da Ciência, SBPC) to defend the existing scientific institutions and press for the ideals of scientific and technological progress. Some of the most preeminent leaders in the scientific community were Communists or sympathizers. During the years of military government in Brazil (1964-1985), SBPC was a very strong and often lonely source of opposition and criticism to the authorities, with some of its leaders being forced into political exile. Despite of their deep distrust, the scientists could not oppose the

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[11]Clark, 1997, p. 98.

[12]Eunice Durham, however, sees some redeeming value in the Council's current work, which she summarizes by saying that it plays a significant if narrow task of reducing the excesses of professional corporations and interest groups both in the evaluation of institutions and course programs and in the establishment of basic curricula orientations. She believes that the norms and procedures being developed by the Council are making higher education more flexible than in the past (personal comments).

principles of the 1968 reform nor the large investments in scientific and technological research and graduate education made by the Brazilian government in the 1970's.[13] For a large part of the student body, however, and among a new generation of less qualified academic and administrative staff, the idea remained that the 1968 reform was a reactionary, anti academic, and repressive act, orchestrated by the military in association with the Americans. One of its consequences was the expansion of private higher education at the expenses of the public sector.

In contrast with the higher education laws, both the constitutional tenets and the general education laws that exist in Brazil, were approved by Congress in periods of democracy but in very different circumstances. In the Brazilian tradition, whenever an authoritarian regime ends, representatives of the people are called to write a new Constitution which, by necessity, should limit the powers of the government and guarantee the rights of the citizens.[14] Brazilian constitutions tend to be generous and inclusive filled with hopes and promises. The 1988 Constitution was no different. It is a very extensive and detailed document, enshrining a large number of social rights and benefits the government is supposed to provide regardless of resources, and curtailing the government's power to manage its affairs. On higher education, articles 206 to 214 require, among other things, free public education in official institutions, democratic management of public education, a unified career for federal institutions, autonomy, and the *principle of indissolubility of teaching, research and extension work*.

These broad constitutional mandates, which can only be changed by a 2/3 majority in both Houses, had to be specified by a general education law.[15] Such broad laws take years to pass through Congress, and in the process they are likely to become more tuned to reality and more conservative. The first law of this kind, required by the 1946 Constitution, dragged for decades in the Brazilian Congress. It was then stalled by a dispute between laic and Catholic groups about the role of the state in providing public education, and was finally approved in the early sixties with a victory of sorts of the Church, with the statement that families, not the State, are the ones that have the main responsibility for the education of their children. The new law, approved in 1996, went through a very complex, lengthy discussion in Congress, with intense mobilization of professional associations, political parties, political movements, and interest groups. It was expected to follow the same line of the Constitution (see box), but was replaced at the very end by a much more flexible and concise text introduced in the Senate.

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[13]On the Brazilian scientists and their political roles, see, among others, Schwartzman, 1991; Botelho, 1989 and 1990; Fernandes, 1987; Schwartzman and Botelho, 1997.

[14]This happened with the frustrated constitutional assemblies of 1823, when Brazil became independent; and of 1934, after the first years of the Vargas period; as well as with the Constitutions of 1889, the beginning of the Republican period; 1946, with democratization after the war; and 1988, at the end of the military regime.

[15]Called in Portuguese *Lei de Diretrizes e Bases da Educação Nacional*, which can be translated as law of basic orientations and principles of national education.

According to one description, "O Projeto de Lei de Diretrizes e Bases número 1258/88, em discussão na Câmara dos Deputados, originou-se de um projeto do deputado federal Octávio Elísio (PSDB/MG) que incorporava as discussões e debates que estavam ocorrendo na sociedade civil, especialmente os educadores, através de suas entidades representativas. Entre os meses de abril e junho de 1989, iniciou-se uma série de audiências públicas, em que foram ouvidos 40 representantes de entidades e dirigentes de órgãos ligados à Educação, além de debates, reuniões, seminários e consultas promovidos pela comunidade acadêmica nacional, gerando uma primeira versão do Substitutivo ao Projeto de Lei número 1258/88, apresentado pela relator da Comissão de Educação, Cultura e Desporto, deputado Jorge Hage (PSDN/BA), em agosto do mesmo ano, como proposta para discussão. O substitutivo recebeu 978 emendas de deputados, sendo acolhidas 447, além de várias sugestões de outros segmentos da comunidade educacional dos mais diversos pontos do país. Nessa segunda etapa de consultas, a Comissão optou por promover Simpósios Temáticos em que educadores, especialistas e pesquisadores debateram temas específicos e polêmicos relacionados com a nova LDB. Essas sugestões foram sintetizadas em uma segunda versão do substitutivo, apresentada ao final de 1989. Ao iniciar-se o ano legislativo de 1990, são apresentados pelos deputados cerca de 1000 destaques sobre as 531 emendas rejeitadas no ano anterior, ocorrendo um dos mais eficientes processos de negociação e construção coletiva de um projeto de lei que foi aprovado, por unanimidade, pelos membros da comissão, em junho do mesmo ano."

Source: Maria das Graças Medeiros Tavares, introduction to the archive of the "Lei de Diretrizes e Bases da Educação Nacional," Universidade Federal do Rio de Janeiro, Centro de Filosofia e Ciências Humanas, Programa de Estudos e Documentação Educação e Sociedade (PROEDES), http://www.cfch.ufrj.br/PROEDES/abertos/ldb

Known as *Lei Darcy Ribeiro*,[16] the new education law included several innovations suggested by the Ministry of Education of Fernando Henrique Cardoso's government, which would not be likely to appear in the original project. Institutions and course programs are to be evaluated periodically and may lose their accreditation. Universities are required to have at least one third of their staff on full-time contracts,[17] and one-third having at least a master's degree. These requirements mean, in practice, that very few private institutions will be able to keep their university status in the long run, since most of their academic staff is part-time and the staff members very often only hold a professional degree. The law establishes, arguably against the letter of the Constitution,

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[16]A colorful doublé of intellectual and politician, Darcy Ribeiro had been the rector of the Universidade de Brasilia in 1991. The first attempt in Brazil to create a modern university centered on research and organized along departments and institutes, and not professional schools. Because of his identification with the Goulart government, ousted by the military in 1964, he was deposed from the university and went into exile. He returned in the eighties as vice-governor of Rio de Janeiro with Leonel Brizolla, a traditional foe of the military. He had, therefore, impeccable leftist credentials, but his understanding of educational matters, although controversial, were closer to the ideals of quality and efficiency than to those of the sheer defense of traditional practices and established interest groups.

[17]Full-time contracts in public universities do not mean necessarily full-time work, being often just a way of paying higher salaries. Many universities do not even have enough office space for their full-time staff, and there is now a legal distinction between *40 hours a week* and *exclusive dedication* contracts, which can mean different salaries but not necessarily different work loads.

that universities should have special legislation (different, therefore, from the civil service as a whole), and that they are free to create their own career plans for their academic and administrative personnel.[18]

The Federal Administration: the Ministry of Education.

The Ministry of Education is the federal government's arm to implement its policies, but its reach is not as wide as it is often sought. Constitutionally, basic and secondary education is the responsibility of state and local governments. The federal government is restricted to the federal system of higher education and the supervision of private institutions, and the establishment of general rules and orientation for the other levels through the National Council of Education.[19]

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[18]Art. 54: "As universidades mantidas pelo Poder Público gozarão, na forma da lei, de estatuto jurídico especial para atender às peculiaridades de sua estrutura, organização e financiamento pelo Poder Público, assim como os seus planos de carreira e do regime jurídico do seu pessoal."

[19]This is the practice, not the rule, since the Constitution does not say that the federal government is responsible for higher education, only that it is responsible for the federal education system. The constitutional text is as follows: (article 211, §1): "A União organizará e financiará o sistema federal de ensino e o dos Territórios, e prestará assistência técnica e financeira aos Estados, ao Distrito Federal e aos Municípios para o desenvolvimento de seus sistema de ensino e o atendimento prioritário à escolaridade obrigatória." In practice, the federal government has no direct interference with the daily workings of state and municipal higher education institutions, which are ruled by the states and their state councils of education.

The table below, prepared by former Education Minister José Goldemberg, provides a good picture of the Ministry's reach in terms of the resources it controls:

Brazil, Ministry of Education, Expenditures in 1990 (in US$ millions)						
	Resources from the Federal Budget				**Other Resources (%)**	**Total (%)**
	Personnel	Current Expenditures *(custeio)*	Investments *(Capital)*	Total (%)		
Federal Higher Education Institutions	2,928	217	166	78.40		53.00
CAPES	1	131		3.13		2.11
Federal Technical Schools	205	20	6	5.47		3.70
Other agencies	245	151	153	13.0		8.79
Fund for Assistance to Students (FAE)					30.43	9.86
National Fund for the Development of Education (FNDE)					23.72	7.68
Salário Educação (transferred to States)					45.85	14.86
Total (percentages)				100	100	100
Total (in US$ millions)	3,379	519	325	4,223	2,204	6,427

Source: Goldemberg, José. 1993. Relatório sobre a Educação no Brasil. MEC, Brasília

This was the situation in 1990, and today it is not very different in relative terms.[20] About 80 percent of the resources received by the Ministry of Education from the Federal budget (4.2 billion in 1990) went to its network of federal universities, mainly to pay for salaries and retirement benefits of academic and administrative staff. Higher education is handled by two agencies within the Ministry. One is CAPES, an old acronym for an agency devised to increase the professional qualification of the higher education teaching staff, now in charge of the evaluation and support to graduate education mostly through the distribution of fellowships for graduate students. The other is the Secretary for Higher Education, SESU, which sometimes handles small amounts for distribution to the universities for special purposes.[21] In periods of budgetary instability,[22] SESU is the focal point for rectors pleading for additional resources or authorizations to expend. The Ministry of Education has a say in the proposal of the yearly budget for the federal universities, but it has to work within the limits established by the planning and financing ministries. The Congress discusses and approves the budget for each institution, and the Ministry has no power to switch money from one university to another.

In short, the Ministry of Education is limited to a marginal use of the existing resources for higher education. It has more leeway on the management of resources coming from a tax paid by Brazil's firms. In 1990, these taxes were *salário educação* and *finsocial*.[23] According to the legislation, two thirds of this money, which in 1990 amounted to 2.2 billion dollars, had to be transferred back to state governments for expenses on basic education. The other third, about one billion dollars, could be spent with discretion by the Ministry of Education also on basic education, i.e., building schools, teacher training, book distribution, school meals, or improvised campaigns for one thing or another. Because of these resources, extremely useful for patronage politics in election years, the Ministry of Education was always coveted and usually given to politicians in the government's alliance, who seldom had the improvement of the country's education system as their first priority. This situation started to change in the early nineties, with the nomination of José Goldemberg during the Collor period, and was maintained in Fernando Henrique Cardoso's government with Paulo Renato de Souza;

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[20]In absolute terms, however, the federal government is spending now about 6 billion dollars a year with its higher education institutions (compared to 6.2 to 5.7 billion between 1995 and 1998, in 1997 values), 27 percent of which going to retirement benefits, and about 65 percent to direct and indirect salaries.

[21]One of these programs was PAIUB, which provided resources for universities willing to implement systems of internal evaluation.

[22]Which tend to be the norm, either because of inflation or because of the need to curtail expenditures to balance the budget.

[23]The *finsocial* was abolished in 1991. The *salário educação* corresponds to 2.5 percent of the salaries paid by each firm in the country, which can either be used directly by educational projects within the firms, or have to be transferred to the federal government, which then transfers two thirds to state governments. The payment of this contribution is now being contested in the courts. According to a recent statement by Ministro Paulo Renato, published by *Folha de São Paulo* on September 11, 1998, there were 10,600 legal actions against this payment, and because of that the states were bound to receive less than R$ 158 million from this fund. The court actions against *salário educação* started in 1996, and there are now about 200 to 300 new court actions per week, questioning its constitutionality and being granted exemption by lower courts.

the former a well-known physicist and former rector of the University of São Paulo, the latter a well-known economist and also former rector of the State University of Campinas. Today, it is difficult to imagine that the Ministry of Education could be occupied again by a politician, for the same reason that the Ministry of Economics has to be occupied by competent and reputable economists. Both Goldemberg, during his short and difficult tenure, and Paulo Renato de Souza strived to introduce rational criteria and eliminate political patronage in the distribution of public funds under their administration. By doing so, they contributed to reduce still further the discretionary power the Ministry has in the direct management of Brazil's education institutions and resources.[24]

[24]For the same reason, they collided very strongly with some sectors in public universities. In contrast, Murilio Hingel, the Minister of Education in the Itamar Franco period, did not bother with evaluation or reform, and was very popular in the universities.

The Judiciary

No policy to change and improve higher education could succeed without taking into account the possible interference of the courts. Brazilian courts are usually very slow to make decisions, but can be very quick in granting assumed rights to persons asking for their help in labor disputes. There is a separate system of labor courts, which have a tradition of granting benefits to employees against employers and, especially, the government. It is not necessary for a judge to examine the substance of a demand to make a decision. He can decide, *in limine*, that a person is suffering a material constraint, and issue an order to the employer to attend to the demand, while the substance awaits a final decision, which can take years. A very complicated system of appeals can go up to the Supreme Court, which cannot just work in the establishment of legal doctrine and jurisprudence, but has to decide whenever a case is legally brought to its attention. Once a decision is made by a higher court, it does not apply automatically to similar cases being handled by lower courts, until each specific case is brought to its attention. Because of this practice and because of the successive changes in currency and ways of calculating real wages in times of intense inflation, courts are flooded with requests from civil servants for corrections in their salaries. These are often approved retrospectively, leading to huge compensations the government is forced to pay regardless of the existence of the resources. One consequence of this situation is that salaries of civil servants, which should obey in principle to the rule of equal payment for equal activities, can be very different in practice depending on whether specific persons have succeeded in their legal complaints.[25] Another consequence is that the government is unable to control a substantial part of the growth of its expenditures on personnel. A third consequence is that administrative arrangements aimed to increase the administration's flexibility in hiring, paying, or laying off personnel are likely to be successfully challenged in court. Most of the judiciary interference with educational matters has to do with labor salaries and payments, but there is no reason why courts could not interfere in matters such as the way students are selected to enter universities or the criteria to grant diplomas. The Federal government, through the Advocacia Geral da União (the Federal Attorney's Office) has developed a very complex set of procedures to try to narrow the ability of individual judges in lower courts to make quick rulings that affect the country's general interest. However, this is an uphill and difficult battle.

The Students

All these institutions, Councils, and legislation were developed, supposedly, with one purpose in mind: provide good education to students. But who are these students? What do they want? How do they express their desires and preferences? How much power do they have to make their interests and aspirations prevail?

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[25]In 1998, the federal government was expected to pay 641 million dollars in *precatórios* to its employees in federal universities, 11 percent of its total expenditures with these institutions. These *precatórios* are court-ordered compensations for past salary differences, as defined by the courts.

Brazilian higher education is still very narrow—only about 6 percent of the population in the 18- to 24-age bracket is in higher education today.[26] For this reason, it is usually assumed that students are children that belong to the wealthiest and richest families. This is only part of the truth. In the seventies, when Brazilian higher education expanded very rapidly, the country was also going through a very intense process of social mobility. Therefore, a large percentage of the students entering higher education came from families with very low educational background struggling to make room in a new urban and modern space. The educational levels of students' parents in the richest regions tend to be higher than in the poorer states, but this is explained partly by the investments in education of the children of the immigrants who entered southern Brazil in large numbers at the turn of the century. Earlier, children of traditional families would enter the established professions, while children of upward mobile families would enter fields with stronger technical contents, natural sciences, or new fields such as social sciences. In the seventies, as the system expanded, the number of youngsters coming to higher education from poorly educated families increased, and the course programs they followed were often below standards in terms of quality and proficiency. Still, the benefits associated with a higher education degree in Brazil remained high in relative terms regarding salaries and employment opportunities, even if not always befit to the aspirations of ambitious and upward mobile youngsters. This is probably one of the explanations for the traditionally high levels of political mobilization of students, but can also help to explain their alienation regarding the values and traditions of academic culture. It is possible to say that, while in the past student activism was characterized by ideological mobilization, more recently it tended to be directed to very narrow demands—cheap restaurants, no fees, no testing—while most of the students prefer not to get involved. There are signs that a new kind of student activism, demanding good quality teaching and value for money in the private sector, is starting to appear, but it is still too narrow and limited to make any difference.[27]

Half of the students in higher education in Brazil today are female, and a very large percentage is mature and already working. While most courses in public universities take place during the day, practically all courses in private institutions are taught in the evening, and most of the evening students have jobs. This picture is very different from thirty years ago, when students used to be young, male and fully supported by their parents. Women are now entering the traditional and most prestigious fields, like medicine and economics, but they still concentrate in some low prestige careers, such as nursing, social work, teaching and librarian sciences. Mature, working students flock to course programs on administration, law, economics, and accounting. These students are not likely to get involved in broader political movements and demonstrations, except when they are affected by growing costs or difficult academic demands, or when they feel insecure about their prospective careers.

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[26]The usual comparison, however, is between the total number of students and the population in the corresponding age bracket, which according to IBGE's National Household Survey (PNAD) gives 10 percent for 1996.

[27]For an expanded discussion, see "Los Estudiantes y la Política," in Schwartzman, 1996, p. 115-119.

The Academic Profession

The existence of a strong, professionally competent and independent academic community is usually considered a central component of a vital and creative higher education setting.[28] For good or bad, the fact is that the academic community is the strongest and more active interest group in the Brazilian higher education environment. Organized in a local and nationwide teachers' association,[29] they shut down most of the federal universities for several months in 1998. In a strike for higher salaries, during which the government was forced to give in, a strong opposition to the designation of the new rector of the Federal University of Rio de Janeiro was staged, creating an impasse which still lingers, and has had an enormous cost for the government in terms of public image and legitimacy.

Behind this appearance of strength and unity, the so-called *academic community* is fragmented in three or four very different groups.[30] Until the 1968, there was neither full-time employment nor research in Brazilian universities, with a few scattered exceptions. Most of the academics were members of the learned professions who also taught part-time at universities and faculties as an ill-paid but often prestigious second occupation. This pattern persists today in most faculties of law, engineering, medicine and dentistry. These university professors are not likely to get involved with strikes or to participate in collective movements of any kind, except those related specifically with their respective professions.

After the 1968 reforms, other groups started to grow. One was a selected group of highly trained academics, which went for their doctoral studies in the US and Europe, and returned to occupy the highest positions in the new departments, institutes, and research organizations created in the seventies. They are now the new *high clergy* of Brazilian higher education, in many ways similar to other academics in the US and Europe. Besides their regular salaries, they develop intense entrepreneurial activities on behalf of their scientific careers. They are then able to get resources and additional income from research supporting agencies and contractors in the country and abroad. They try to exert influence on academic and scientific matters through personal contacts and lobbying, rather than through collective action. It is possible to estimate their size in terms of the number of academics with doctoral degrees in Brazilian higher education: 24 thousand in 1996, 16 percent of the total, and strongly concentrated in the São Paulo region.[31]

The second group, which developed after the 1968 reform, was a growing army of less trained, full-time teachers and professors in the public system—the *low clergy*. In the

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[28] See, for a discussion, Schwartzman, 1994.

[29] ANDES, the Associação Nacional de Docentes de Nivel Superior.

[30] Schwartzman and Balbachevsky, 1996; Balbachevsky, 1995.

[31] These figures, taken from *Evolução das Estatísticas do Ensino Superior no Brasil 1980-1996*, organized by the Ministry of Education, refer to *funções docentes* or teaching posts. It is usual for someone working in a public university during the day to teach in a private institution in the evening, and in this case he would be counted twice.

early seventies, public universities started to hire full-time teachers to attend to the expansion of enrollment which was taking place, and to fill in the places created by the new departments, institutes, and introductory course programs (*ciclo básico*) which were part of the new academic model. In the past, academic life in the universities and faculties was organized around chair-holders (*catedráticos*), who had a strong say on who would be hired to help on their teaching tasks and eventually in running research programs and laboratories. After 1968, as the chair system disappeared, recruitment was done by the university's central administration. The assumption was, and still is, that entrance to university careers should take place only through formal exams and public competition (*concursos públicos*"); however, in practice, a large number of lectures were hired on a provisional basis, and were later granted job stability by the government.

To improve the quality of higher education, legislation requiring graduate degrees for promotion to higher ranks was introduced in a time when graduate education in Brazil barely existed. The universities were stimulated to move rapidly to create graduate programs, and CAPES created a program to provide fellowships and support for university professors who wanted to spend a few years on leave to get their degrees. The requirements to create doctoral programs, however, were stiff (it was necessary to have a group of full-time Ph.D.'s to begin with), and the consequence was the proliferation of Master and specialization course programs. Today, 60 percent of the country's teaching positions are filled with persons with Master's or specialization degrees.[32] The survey on the academic profession in Brazil showed that this group is the core of the militant, politically motivated teachers' unions. We called this group *type III* in contrast with the *high clergy* called *type II*. The box below summarizes our findings and conclusions about the different types.

The remaining group, finally, is a nondescript mixture of part-time teachers working mostly in private institutions. In one extreme, they can be a well-qualified group of established professionals and active or retired professors from the public sector who teach by the hour in the evenings in private institutions. At the other extreme, they can be persons with little qualification or too young to have gotten a position in a public university when it was easier and necessary to teach in different places many hours a week to make ends meet. They have no career perspectives, no long-term contracts with their employers, no common identity, and very little bargaining power. If we assume that most of the academic staff in the private sector is like that, they add to about 75 thousand teaching positions (half of the total in the country) in charge of about two thirds of the country's undergraduate students.

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[32] *Specialization*, in Brazil, is defined as a post-graduate program of any kind lasting for about a year and provided by any recognized institution. Master's degrees, on the other hand, are like simplified doctorates, often lasting several years, requiring a dissertation at the end, and supervised by the Ministry of Education. This means that, often, specialization courses work as diploma mills providing credentials for higher education lecturers looking for promotion.

Type III is a professor, very often a woman in the humanities and education, who has a stable and full-time job in a public institution, but did not have the conditions or the opportunity to reach the standards of professional achievement of type II. Even when her values are similar to those of group II, her practice is different. Her professional identity is not given by her undergraduate degree, as in the traditional professions, nor by her individual achievements as an independent scholar and researcher, as in type II. Instead, it is given to the appurtenance to an institution and a group with whom she shares daily problems, achievements, and routines of academic life. It is in this group of professors where one could find some of the central dilemmas that are common to all processes of professionalization: the tensions between the ideals of the collectivist trade unions and the individualistic liberal professions, the opposition between the values of personal achievement and those of the professional community, and consequently the spaces that are open or closed for intellectual growth, the development of competence, and the strengthening of social responsibilities.

Source: Schwartzman, S., and Balbachevsky, E. 1996. "The Academic Profession in Brazil". In: Altbach, Philip G. ed., The International Academic Profession - Portraits of Fourteen Countries. The Carnegie Foundation for the Advancement of Teaching, Jossey-Bass Inc. Publishers, San Francisco, p. 270-271.

Academic Institutions and Networks: the Public and the Private

Another consequence of the 1968 reform was the strengthening of the rectors' offices and the administrative bureaucracy in public universities. Before the reform, the universities were in practice an association of independent professional schools; and the role of the rector was mostly symbolic. The reform created the need for complex, centralized structures, a need, which was intensified by an ambitious program, supported by the Inter-American Development Bank, to build unified campi for federal universities throughout the country. Following the general trend, the universities' non-academic employees gathered in unions and joined the teachers' unions and their campaigns for salaries and other benefits.

University rectors in federal institutions are nominated for a fixed mandate by the President of the Republic from short lists produced by the university's academic Councils. This procedure seems sensible: the rectors are supposed to be persons with leadership and legitimacy in their institutions, and the government has some influence in choosing someone who should represent not only the interests and views of his institution but of the broader society as well. However, this process of nomination has led to periodical confrontation between government and universities, and is at the root of the recent crisis at the Federal University in Rio de Janeiro. These issues are, first, how universities produce the list and, second, how the government picks the person to be nominated. The demand from the teachers', employees', and student unions and associations is that nominations should be made through open, one-man-one-vote elections, with only the first name being presented to the government for appointment. With the end of the military regime in 1985, this procedure, with some variations, became widespread with the understanding that this was the democratic way to go and that the

government was not willing to confront universities in this highly politicized process. Through this mechanism, rectors, formal representatives of the government and taxpayers in the administration of the universities, became the main lobbyists for the interests of the unions and associations in Congress and in the executive branch. In São Paulo's state universities the nomination process was kept under the control of the senior academic community. It is not surprising that this system was only resisted, from the federal government's side, precisely by the two education ministers that came from São Paulo's universities: José Goldemberg and Paulo Renato de Souza. Current legislation requires a large majority of academics to participate in whatever process of nomination the universities choose to adopt. However, this new practice is still to be implemented, and the government has been refusing to nominate rectors whenever universities have not sent a proper list with three names to choose from.

Although this is an improvement, it still keeps the rector as a representative of the academic institution and not of the government and society at large, curtailing his ability to implement unpopular reform policies. The rector's powers are also curtailed by a very complex system of a collegial decision-making process and elections in each faculty, department, or institute. This means that, in practice, rectors can only appoint their personal staff (often called pro-rectors, or vice-rectors for undergraduate, graduate education and research, and planning), but not the directors of departments or faculties. The replacement of the old chair system by collegial departments was meant to give more power to the new generation of well-trained academics and researchers entering the universities in the sixties. In most cases, however, it led to the watering down of academic hierarchy and the development of an extremely slow and inefficient decision-making process based on lengthy discussions and majority voting, often dominated by junior and less qualified staff and student representatives. In contrast with the US universities, Brazilian public institutions do not have an administrative staff with independent decision power, and lack any kind of external supervisory body such as a board of regents that could oversee their work.

The rectors in federal universities are organized as a national forum, the Associação Nacional de Instituições Federais de Ensino Superior (ANDIFES), and also belong to the nationwide Council's rectors, the Conselho de Reitores das Universidades Brasileiras (CRUB).

Private universities and institutions can be very different from each other. They have formed a complex web of associations, which includes CRUB, the Associação Brasileira de Mantenedoras do Ensino Superior (ABMES), the Associação das Universidades Particulares (ANUP), and the Associação Brasileira das Universidades Comunitárias (ABRUC).[33] It is typical of private institutions to have an owner (called supporting institution—*instituição mantenedora*) who has all the power to nominate or dismiss the rector and other administrative and academic personnel. Theoretically, these supporting institutions are all nonprofit; although, in practice, this may be just a way to

[33] For a detailed description and analysis, see Sampaio, 1998, Chapter 4, *Campo Político: Atores e Policies*.

avoid paying taxes, and to have access to student credit and other public benefits.[34] Religious and community-based institutions have argued for long that they are public institutions in terms of their objectives, and that they should be entitled to public support, which is forbidden today by the Constitution except for student credit or research. Their relationship with the federal government and public universities tends to be tense and difficult. They resent the controls and limitations imposed upon them by the National Council of Education and the Ministry, as well as the requirements they have to fulfill in order to maintain their university status, especially regarding full-time employment, academic qualification for teachers, and academic autonomy of their departments and institutes vis-a-vis the maintaining institutions. In most cases, they do not want and do not have the material and intellectual resources to go beyond undergraduate teaching in the less technical fields.

Some private institutions are famous for being very aggressive in their lobbying tactics to approve legislation and to get their representatives nominated to the Council of Education. The Catholic universities, an important segment of the private sector, can make use of the persuasive powers of the Catholic Church if necessary. In general, however, it seems fair to say that the public sector still has the upper hand. The private sector is still perceived with mistrust by the government and in academic sectors, either because of its lack of standards or just because it is private. Because of this situation, many private institutions see with hope the introduction of evaluation mechanisms for undergraduate education, which could eventually prove their worth and increase their reputation and public recognition. Others, which work mostly as diploma mills providing educational credentials for the regulated professions and civil servants seeking promotion, are not very happy with this prospect.[35]

The Professions

We have seen how the medical and legal professional associations work against the expansion of higher education in their fields, either because of a concern for quality or because of *diploma inflation*, which could threaten their earnings. Most of the learned professions in Brazil are regulated by law (medicine, dentistry, and law; as well as engineering, administration, economics, social work, biology, journalism, psychology,

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[34] Two recent acts by the government, Decree 2.306 of August, 1997, and Medida Provisória 1.477-40, 1997, were aimed at identifying more clearly which institutions are in fact for-profit, and which ones are truly not. The current legislation allows educational institutions to work openly as for-profit institutions, paying all the taxes, but it is not clear whether any one has taken up this possibility.

[35] The main existing mechanism for evaluation is the national exam required by the Ministry of Education to students completing their undergraduate courses. Then the government publishes the average rates obtained by each course program (the test is not used for the evaluation of the students themselves, although they are required to take it.) This exam (dubbed *the big test--provão*) was resisted at first, but then created a strong emulation among institutions, particularly in the private sector, to improve their marks. One of the main problems with this test, as an instrument for course program evaluation, is that it is biased in favor of public institutions, because it measures absolute scores, not relative (meaning that it may be strongly dependent on the students' background). In addition, the Ministry of Education combines it with data on the formal qualifications of the staff, which is obviously an input, not output dimension.

teaching, pharmaceutics, accounting, library sciences, and many others). Each profession comprises complex local and national entities[36] that are supposed to worry about the quality of their respective course programs to make sure that no one invades their market space, and professionals are paid according to the professions' expected standards. There are many good things to say about professional corporations. Setting technical and ethical standards guarantees that the public is not duped by quack professionals. However, the line between healthy self-regulation and the defense of corporate interests is often blurred. For some professions in Brazil, the market niche is well defined (courts can only be approached through lawyers, pharmacies need to have a pharmacist, building projects have to be signed by an engineer, firms should have an accountant, glass prescriptions are only given by ophthalmologists, a pedagogical degree is required to teach in secondary school). In public jobs, it is necessary to have an academic degree for access to the better jobs or promotion. Because of this situation, the organized professions are strongly opposed to the creation of middle-level course programs for technicians and specialists in their fields (such as optometrists and clinical nurses), as well as any proposal to deregulate the professions and let the market decide whom it wants to hire and at what price. This situation explains also the large number of cheap diploma mills, providing degrees at little cost without requiring much in terms of knowledge.[37]

The End Users: Families, Companies, Government

It could be expected that the main stakeholders for higher education would be the families that send their children to school and support their study; the companies that need competent people for their activities; and the government, which foots the bill for the public sector and is one of the main employers of the better educated. One could also expect that trade unions and political parties would place the issues related to higher education in their agendas, demanding more access and complaining, for instance, against the subsidies to upper income groups implicit in the current system of free public higher education. In practice, however, one does not see these stakeholders show their faces, and even the federal government only shows concern with higher education through the designated ministry, or when there is a strike or bills get too high. This situation may be explained, in part, by the fact that these stakeholders are heterogeneous, unorganized, removed, and with little knowledge of the issues of higher education.

But the main reason is probably the same that makes other institutional reforms in Brazil—in areas such as health, social security and labor—so difficult to achieve. Since the Second World War, Brazil has developed a very benevolent welfare state, in terms of its resources, which was limited to only a part of its population. The segmentation and bureaucratization of the job market in terms of a myriad of professions and their diplomas was a part of the same set of policies that supported the unions with a union tax, granted rights for maternity leaves required full-paid vacation and high severance benefits on layoffs assured that everyone was entitled to free medical care allowed for retirement at

[36]These entities are public institutions. To work as, say, a statistician in Brazil, one must carry a card of the statisticians' association and pay them a yearly tax.

[37]See Schwartzman, 1985, for a more detailed analysis.

early ages and mandated that higher education in public institutions should be free. Today, the costs of most of these benefits are too high and their quality has deteriorated. Moreover, those who were left out of the system, who used to live far away in the countryside, live now in the hills and outskirts of the country's large cities. The demand by both those who suffer because of deteriorating services and smaller benefits and those who think they are about to get some of them is not to change the existing benefits and protections, but to provide more of the same. In the professions, the opposition to flexibility, deregulation, and proper evaluation of course programs do not come from the leading institutions and the best paid careers, but precisely from those at the fringe who are afraid to lose the expected privileges and rights associated with their diplomas, conquered by whatever means they could master.

In higher education as in other areas of social policy, the perception of the need for reform comes from the government, which sees its empty chest, from the better trained and skilled segments of the workforce within and outside the universities that wants freedom and opportunity to show its worth; and from leadership in the public and private organizations that are concerned with efficiency and the proper use of their resources in a competitive environment. The most important beneficiaries of the reforms, of course, would be those who are completely shut out from the existing system of benefits and privileges, or those who can only aspire to some of its crumbs. But this is a long-term view, and it is unlikely that they will emerge as significant stakeholders in the defense of their own interests.

This is a pity, because Brazilian higher education needs to be reformed. Moreover, it is unlikely that this reform will come from the initiative of the most vocal and militant groups within the institutions, the professions, or the public bureaucracy. There are many among the academic staff, students and managers, and outside the universities, who are aware of the existing potentialities, feel uncomfortable about the current shortcomings, and would like to support an effort to make these institutions more competent, efficient, and equitable. It is necessary to increase the voice and presence of these internal and external stakeholders, and a crucial ingredient for that is knowledge and information. They should know what is happening with higher education in the country, which are the good and the bad institutions, who are the winners and the losers, and what are the possible alternatives to the present situation. They need to know each other and to become aware of their common frustrations. From a larger basis of awareness and concern, it might be possible to move ahead.

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Annex 2:
From Higher to Tertiary Education: Evolving Responses in OECD Countries to Large Volume Participation
by Alan Wagner

Introduction

That studies and learning at the stage beyond secondary education are under pressure and undergoing change is evident throughout the OECD area. The developments common to OECD countries, and found in different measure in Brazil and elsewhere, are: a rising or high volume of participation in programs and learning at this stage; a much more heterogeneous pool of current and potential learners, along with shifts in demand from the economy and society for advanced-level knowledge, skills and dispositions; and, everywhere, pressures on resources—both public and private. While not necessarily new, these developments are combining in new ways to create a new context for policies and practices.

There is evidence that arrangements and approaches introduced in a different time and with different expectations are not meeting the needs: differences in participation rates across types, forms and programs of study by age, gender, geographic location, employment status, socio-economic group and family situation; over-crowded classes, lack of innovation in teaching, few adaptations to support student learning in or outside of formal class time; high rates of drop-out, failure or delays to program completion; difficulties, at all levels and for all parties, in marshalling the resources needed for tertiary education; and uneven employment experiences of graduates. An overriding issue is whether appropriate responses to the challenges, aspirations, needs and constraints—for individuals as well as the economies in which they work and the societies in which they live—can emerge from incremental changes to existing arrangements and frameworks or whether more fundamental, sweeping changes will be required.

These considerations gave rise to the OECDs most recent work focused on this stage of studies and learning, and they shape the comments, presentation of examples and argumentation in this paper. Specifically, my aim is to situate developments and policy approaches in OECD countries in relation to a set of issues identified for the development of higher education in Brazil. The OECD experience has been examined most recently by the Education Committee in its "thematic review" of the first years of tertiary education which, from 1995 to 1997, covered twelve Member countries: Australia, Belgium (Flemish Community), Denmark, France, Germany, Japan, New Zealand, Norway, Portugal, Sweden, United Kingdom and United States (Commonwealth of Virginia). In undertaking this work, the Education Committee sought, first, an account of significant trends and issues in a sector that is experiencing remarkable growth in many Member countries and, in others, developing further in response to large volume participation; and, secondly, new perspectives and concepts to inform and strengthen analysis of the key policy issues under review. A comparative report, *Redefining Tertiary Education* (OECD 1998), presents the main findings and conclusions of the first stage of the inquiry; it serves as the main reference for this paper, but I draw more broadly on

information and analyses developed in the course of this work as well as other relevant work on such aspects as regional development and research.[1]

The paper addresses primarily the way expansion and large volume demand has been handled in the OECD area. Its principal sections cover the sources and nature of expansion and demand; how the demand is being met; the diversity in learning options and experiences; progress and gaps in access; reforms of teaching and learning; and a brief overview of costs and financing. In each section, I describe country developments, refer to the relevant policies and note some of the difficulties encountered and issues raised. A short conclusion identifies main lines and issues for future development in the OECD area, which might offer ideas and perspectives for consideration in the more prospective, forward-looking policy reflection underway in Brazil. Before turning to the main body of the paper, I begin with a broad overview of the changing perspective in the OECD work, its origins and general implications for overall policy orientation.

From Higher to Tertiary Education: a New Perspective

The phrase "*from higher to tertiary education*" sets the most recent OECD experience in a new, different key. The term "tertiary education" deliberately signals a break from prior OECD work that focused on "higher education" and, in particular, on institutions, programs and the university. "Post-secondary" is seen as an inappropriate term, at a time when a majority or more—in some countries, substantially more—of a generation are likely to participate in studies at this level at some point over their lifetime. From this 'tertiary-wide' and 'life-cycle long' perspective, rates of participation already exceed 65 per cent in Australia, Finland, Japan, Korea, the United Kingdom and the United States (on the basis of information supplied by the countries). These rates of participation are markedly higher than those envisaged or projected in the early 1990s. One consequence is that, for current and future cohorts, the tertiary level may replace the secondary level as the reference for foundation learning and for key transitions between education and working life. In this respect and others, 'tertiary education' as a term is intended to signal an important shift in orientation, to responsiveness to demand; to inclusiveness; from programs to learners; from a rigid hierarchy of programs and institutions into a breadth of flexible, transparent and inter-connected learning options; from teaching to learning.[2]

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[1] A set of 'country notes', available on the OECD web site, provide accounts prepared by the individual OECD review teams for each of the countries participating in the thematic review. These can be accessed through the 'home page' for the Directorate for Education, Employment, Labor and Social Affairs, at www.oecd.org. Focused analyses of specific issues may be found in individual chapters of the annual OECD series *Education Policy Analysis*: "Responding to New Demands for Tertiary Education" in 1997; "Financing Tertiary Education: The Learner Perspective" in 1998. See, also, OECD. 1998. *University Research in Transition*. OECD, Paris; OECD/IMHE activity on "The Response of Higher Education to Regional Needs"; OECD Centre for Educational Research and Innovation activities on "Learning Cities" and "Knowledge Production, Mediation and Use." Among others, there also are reports from complementary studies on university research, carried out by the Council of Europe and on universities and their regional partners, undertaken by the Association of European Universities (CRE).

[2] By "tertiary education", the OECD refers to a level or stage of studies beyond secondary education, undertaken in tertiary education institutions (universities, polytechnics and colleges; public and private), but also in a wide variety of other settings such as secondary schools, work sites (corporate training), via free-standing information technology-based offerings and a host of public and private entities. By "first years", the OECD focuses on learning and studies leading to a first qualification recognized on the labour market.

The key, common themes are linked to this new orientation are growth and diversity but it will be important to keep in mind that structures, circumstances, traditions and experience among OECD countries are as varied as between the OECD area and other regions or countries. With regard to expansion, for example, some OECD countries—the U.S. and Japan, for example—experienced rapid growth at the tertiary level from the 1960s and 1970s; many other countries, among which Australia, New Zealand, France, the United Kingdom, Portugal, Norway, Denmark, the Netherlands, have seen participation in tertiary-level studies increase rapidly from the mid-1980s and early 1990s. It is notable that enrollment continues to grow in all countries, even those with high levels of participation.

There also are important differences in the structure and organisation of teaching and learning at the different levels. In Germany, young people are prepared well through secondary education and pursue a range of well-defined options from upper secondary through advanced tertiary level studies. In the United States, secondary education is both more general in nature and more variable giving rise to a wider range of academic achievements for those entering a more diverse, fluid tertiary education provision. Differences such as these need to be taken into account when looking into pressures and responses in tertiary education. For example, analyses from the OECD/Statistics Canada International Adult Literacy Survey (IALS)[3] reveal that adults with secondary education in Germany demonstrate higher levels, on average, in the comprehension and use of documents than do their counterparts in the United States. For adults having attained tertiary-level qualifications, the average levels of document literacy are higher than for those with only secondary education in both countries, but the difference between the two countries in average measured levels of literacy is nearly eliminated. Among several explanations for these patterns, one possible interpretation is that tertiary education in the United States brings the academically diverse pool of entrants to a high level; in Germany, this is not part of the mission or orientation of tertiary education.

Demand, Growth and Diversity

The sources of demand in OECD countries, leading to growth and large volume participation in tertiary education, are similar to those identified for Brazil. The first factor is growth in the size of the age cohorts, which have typically generated tertiary-level enrollments. In fact, among OECD countries for which data are available, growth over the 1990s in the size of the youth cohort has been substantial only in the Czech Republic and Mexico.

Second, in many OECD countries, there have been substantial increases in the rate of secondary school completion, with "pipeline" effects on demand for tertiary-level

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It is in these studies and programs where the pressures and concerns arising form large volume participation are most pronounced.

[3] Details on methodology and definitions are provided in the reports emerging from this work, among which OECD and Statistics Canada. 1996. *Literacy, Economy and Society*. OECD, Paris and Ottawa; Murray, T. Scott, Kirsch, Irwin S., and Jenkins, Lynn B. 1997. *Adult Literacy in OECD Countries: Technical Report on the Adult Literacy Survey*. National Center for Education Statistics, U.S. Department of Education, Washington, D.C.; OECD and Statistics Canada. 1997. *Literacy Skills for the Knowledge Society*, OECD, Paris and Ottawa.

studies. In some cases, growth in the rates of completion of a full cycle of secondary education may be associated with educational reforms more generally (as in France and Portugal, but not only in these countries); in other countries, policies have been targeted specifically on increasing retention through upper secondary education (this would apply to Denmark and Australia, and also France). An important point to note is the obvious impact of policies directed at improvements in lower levels of schooling on demand for tertiary education.

Change in total enrollment in tertiary education, 1990-1996 (based on headcount)

	Change in enrollment				
	Total enrollment (1990=100) in tertiary education			Attributable to:	
				Change in the size of youth cohort	Change in enrollment rates
	1985	1990	1996		
Australia	m	100	129	100	130
Austria	80	100	120	97	126
Czech Republic	m	100	149	115	130
Denmark	87	100	121	100	123
Finland	77	100	130	91	142
Ireland	79	100	151	107	142
Mexico	m	100	122	113	108
Netherlands	93	100	110	91	123
New Zealand	86	100	141	97	145
Portugal	m	100	244	105	234
Spain	73	100	137	101	137
Sweden	97	100	141	99	143
Switzerland	80	100	112	98	116
United Kingdom	85	100	181	93	192
United States	91	100	106	95	111
Average of above		100	140	94	140
Belgium	89	100	148	m	m
Canada	90	100	118	m	m
France	84	100	132	m	m
Germany	90	100	107	m	m
Hungary	m	100	185	m	m
Iceland	m	100	126	m	m
Italy	86	100	127	m	m
Japan	m	100	121	m	m
Republic of Korea	m	100	122	m	m
Norway	71	100	139	m	m
Poland	m	100	223	m	m
Turkey	m	100	171	m	m
Average of above		100	133		

Source: OECD. 1998. Education at a Glance: OECD Indicators 1998. OECD, Paris.

Adult Literacy and Educational Attainment in OECD Countries, 1994-

	Below upper secondary	Upper secondary education	Tertiary education
Australia	249 (1.5)	282 (1.3)	308 (1.2)
Belgium (Flanders)	251 (5.3)	289 (2.1)	313 (1.5)
Canada	227 (5.7)	288 (5.3)	318 (4.9)
Germany	276 (1.1)	295 (2.2)	315 (1.6)
Ireland	232 (2.6)	281 (2.9)	304 (3.3)
Netherlands	263 (1.5)	302 (1.4)	311 (1.6)
New Zealand	245 (2.3)	287 (2.0)	302 (1.5)
Poland	202 (1.7)	251 (2.0)	276 (3.9)
Sweden	281 (2.4)	308 (1.0)	331 (2.0)
Switzerland (French)	235 (4.1)	283 (2.2)	313 (2.7)
Switzerland (German)	231 (6.2)	283 (2.1)	300 (2.7)
United Kingdom	247 (2.4)	286 (3.1)	312 (1.9)
United States	200 (4.6)	266 (2.3)	303 (2.4)

( ) Standard errors appear in parentheses.

Source : OECD. 1998. Education at a Glance: OECD Indicators. OECD, Paris.

Third, aspirations for tertiary-level studies are rising, reflecting both growth in demand from increasing levels of income and wealth and a gradual shift in perceptions and expectations among young people that tertiary education "is the place to be". High aspirations are documented in surveys carried out in a number of OECD countries: 86 per cent of 7th form students surveyed in the Auckland region of New Zealand expressed an intent to enter a tertiary education institution immediately on completion of secondary schooling.[4] According to the State Council of Higher Education for Virginia (United States), more than 70 per cent of secondary school students in the state intend to enter some form of tertiary education immediately after high school graduation. Rising aspirations are not limited to the youth cohort. Taking a forward-looking view, OECD Employment, Labor and Social Affairs Ministers adopted at their June 1998 meeting on social policy an 'active aging strategy' which would have as its aims to expand and encourage the capacities of people, as they grow older, to lead productive lives in the society and economy. Ministers singled out the need to reduce constraints on the way people spend time *over the course of their life*—in learning, in work, in leisure, in care-giving—and to promote a wider range of opportunities for people as they age. In situating learning in this much wider perspective, Ministers implicitly drew attention to a new, purposeful policy strategy to shape both public and private demand for education, perhaps especially tertiary education, at initial and later stages of the life cycle.

Fourth, restructuring in national economies is giving greater weight to advanced levels of knowledge, skills and dispositions. The sources of this shift in demand have been examined closely in the OECD, most directly in the *OECD Jobs Study* (1994 and

[4] Parr, Bruce C., and Parr, Judy M. 1995. *The Tertiary Education Participation Study: An Investigation of the Plans of Seventh Formers and Their Outcomes*. Auckland Uniservices Limited, The University of Auckland, Auckland.

various follow-up analyses and reports). The analyses point both to globalisation and technical change as elements driving the longer term need to adopt a "high skills/high productivity" jobs strategy and to the conditions created for economic growth by a large, highly skilled and flexible labor force and population. Employment prospects for graduates are uneven and more uncertain, even if relatively favourable with respect to non-graduates, in most OECD countries. The changes underway boost demand for advanced skills and knowledge but also have led to new and more varied destinations for graduates from particular fields (as in Denmark, for example), declines in public sector employment and/or a weakening of the tacit expectation of a complete career with a single employer (as may be seen in France and Japan, among other OECD countries). If the Danish background report for the OECD thematic review characterises the present situation as one in which "for students, both the opportunities and the risks are greater than they used to be," it is also one in which the base of demand is broadened in response to the opportunities and risks to encompass learners seeking to augment skills and knowledge at mid-career.

Fuelled by the volume and diversity of demand, policies and responses have tackled three main problems: meeting *quantitative* demand; addressing heterogeneity of backgrounds, needs and interests in the larger pool of students and emerging from the economy and society; and providing for wider access.

Meeting Large Volume Demand

In a number of countries, the immediate concern is how to provide tertiary education opportunities for the rapidly increasing numbers of those seeking to undertake studies at this level. The organisation of teaching and learning is dealt with further on; here, attention is directed specifically to the ways in which countries have managed to accommodate growth in quantitative demand. Four main approaches can be identified.

In some countries, existing provision has been *extended under current structures*, through (i) increases in the size of existing institutions in Switzerland, Germany, Denmark and the United Kingdom (among other countries); (ii) the establishment of new institutions, as in France through its *Plan Université 2000* to spread higher education throughout the country and draw in support from regional authorities and interests (a new initiative is aimed, in part, at Paris) and in Sweden; and (iii) the introduction or boosting of new types of institution (usually, non-university) as in Austria, Finland, Switzerland, the Czech Republic, proposed in Mexico and to some extent also in Denmark. Countries differ on the extent to which resources have been made available to expand provision on conventional lines. In several, but not all countries, funding per student has declined—in some cases, substantially so; these trends must be looked at in relation to shifts in students across fields, types of institution and programs. Moreover, it is not clear that expansion within the well-defined programs has adequately met the demand. This question arises in the French case, where expansion of the short-cycle, vocationally-oriented programs (in the IUT and STS), although substantial, may not yet have matched the growth in demand for these types of program, with consequences for students who enter other types of tertiary education (see further discussion of the French case, below).

A second approach, found in just a few countries—Portugal, and more recently in a new policy direction adopted by the New Zealand Ministry of Education, in its November 1998 White Paper—is to open up tertiary education to *private providers*.[5] In Portugal, in the decade to 1995 overall enrollment has increased by a factor of three. No other OECD country for which comparable data are available experienced such rapid growth. Although the public sector progressively expanded to meet the demand, the private sector has, over the past ten years, absorbed somewhat more than a third of the growth and, itself, increased at more than twice the rate of growth of the public sector. The sector is large, comprising some 140 institutions with a very wide range of provision, from more or less traditional universities to smaller, or at least highly specialised, institutions with limited infrastructure. Ownership arrangements are varied, from private corporate interests to foundations controlled by private interests to individuals as founders and owners; at least one private establishment provides instruction in a specialised field under 'contract' with a public university. Staff profiles and terms of employment appear to be equally varied. Some institutions employ a large proportion of full-time teaching staff; others rely to a significant degree on part-time teachers who hold posts at public universities. These arrangements explain, in part, how it was possible for the sector to expand as rapidly as it did, and also the concerns and judgements about uneven quality which have arisen. References is made, for example, to 'turbo' professors, i.e. those who travel from one site to another to deliver lectures while retaining their posts in public universities.

However, on the perspective of the OECD team undertaking a review of the first years of tertiary education in Portugal[6], the development of private tertiary education in the country is not so simply characterised, nor is the use of (some) part-time staff necessarily a negative feature of the system. Indeed, the team considered it important to conceive of the quality issue in broad terms and to evaluate programs offered in the private sector in relation to their aims and student clientele: they cater particularly, according to available data, to adults in urban centres following studies in law, business and the social sciences. It may well be that some or many do a good job with regard to access, job placement and efficiency. Evidence one way or the other is not available. A related area of concern is the concentration on "book sciences" in these institutions, when viewed against the need to provide a broad base for learning and re-learning and also to produce a balanced overall profile of graduates from tertiary education. The issue of breadth of preparation also was raised by the OECD review team looking into programs and experiences of graduates of highly specialised, independent private "career schools" in the U.S.. In the Portuguese case, the reviewers believed that the problem could be tackled through a strengthening of co-operative arrangements with other providers, public and private. The issue of a balanced overall profile of graduates arises also in Japan,

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[5] In the terminology employed by the OECD, the institutions of interest are those classified as 'private, independent'. These institutions do not fall under public sector governance arrangements and secure the majority of their funds for core activities from private sources. In this text, I use the term 'private' to mean 'private, independent'.

[6] OECD. 1998. "Thematic Review of the First Years of Tertiary Education". Country Note: Portugal. OECD, Paris.

where concern about a possible overlap in provision between the public and independent, private institutions has led some to call for an even greater targeting of available public subsidies (and enrollment) on more costly science, engineering and technology fields in the national universities while shifting even more of the provision in social sciences and other fields to private institutions.

Demand has also partly been met through a third approach, *cross-border enrollment*. The evolution of the flows is less a result of a pro-active national policies than fluctuations owing to unmet demand (in countries where the number of places in some or all fields are controlled) finding its outlet based on long-standing historical, geographic, cultural and/or linguistic ties.[7] This applies most specifically in the case of flows from Greece to Italy, the Netherlands to Belgium (Flemish Community) and Norway to Denmark; but also, with respect to certain programs or levels of study, in flows between the U.S. and Canada, Australia and New Zealand and from Mexico, Japan and the Republic o Korea to the United States. Something of a reverse flow arises in the Dutch-Flemish case through participation of Flemish students in Dutch Open University courses. The United States offers an interesting example of a "cross-border" approach among state-level tertiary education systems within a federal country. Each state having responsibility for tertiary education within its borders, groups of states have come together usually on a regional basis to co-operate in the field of education. Two such regional initiatives may be noted: co-operation broadly within the framework of the Southern Regional Education Board (SREB), under which students in some fields may enrol in an institution in another SREB state at the "in-state" tuition fee. These arrangements may apply in specialised fields where a single program can serve the needs of two states (e.g. veterinary science), and they involve cross-border subsidies. A second initiative is Western Governors' University, a virtual university through which students may tap into offerings at any participating institution in the western states and earn qualifications from WGU. This initiative emerged partly in response to an anticipated explosion in demand for tertiary education in the region, which individual state authorities saw little scope for meeting through conventional means of establishing new institutions.

Flows have increased within Europe, although not so much as might be assumed under the support of the European Union's SOCRATES program (which is not, of course, a program supporting study of a national from one country in a full degree program in another country). The flows remain unbalanced, generally favouring enrollment in U.K. tertiary education and so reflect only partly the need to accommodate growth. Initiatives in some countries are seeking to boost overseas enrollment in their domestic systems, partly to secure revenues (Australia, United States and the United Kingdom), partly to advance a wider policy to open up higher education to international developments and ideas (Japan, the Netherlands and Germany) and partly as a means to stimulate innovation and quality improvement from exposure and contact with programs, institutions and

[7] This observation applies, notwithstanding the position of Mr. Berthil Haarter, former Danish Minister of Education, who in the early 1990s welcomed the choices of Danish students to enroll outside of Denmark, both for the experience and expertise they would gain but also for the expenditures for physical infrastructure which would not have to be made to accommodate their enrollment at home.

research in the wider international environment (Australia, Japan, France, Germany). The growth area for international development are new branch campuses and split site arrangements, both to attract enrollment and revenues and to establish quality in an international environment. For Danish and Flemish institutions lacking standing as universities, for example, joint program arrangements with U.K. universities provide access to a university degree for their students and a confirmation of university "level" studies for themselves.

Finally, note should be taken of *distance learning options*, found in various forms in a number of countries among which Australia's Open Learning Australia, Japan's University of the Air, Germany's *Fernuniversität - Hagen* and the U.K. Open University. OECD work in the early 1990s revealed that, in spite of the attention given to new ICT-based distance learning possibilities, well over half of distance education at the tertiary level in the United Kingdom was provided through long-standing programs and arrangements of external departments of the universities. That picture may have changed somewhat with the continued penetration of ICT, particularly access to and use of the internet. On the evidence of the OECDs thematic review of the first years of tertiary education, however, tertiary education at a distance through whatever means of delivery remains underdeveloped and underutilised.

These approaches reflect a mix of policies which apply strong measures to allow or support expansion (extended provision, distance learning), but also weak measures (private providers, cross-border flows) in which third parties and partners play a larger role and, therefore, demand itself becomes a more important driving force.

Accommodating Diversity

Of the four sources of demand identified above, three—higher rates of secondary school completion; rising aspirations; shifts in demand from the economy—imply *rising rates of participation* from the pool of potential tertiary-level learners. A consequence is a greater diversity of backgrounds, interests and capacities of those participating. The range is observed in several countries. The picture revealed by these patterns can be elaborated by reference to experiences in a few countries. In the United Kingdom, for example, government policy in the early 1990s envisaged a gradual increase toward a target of 60 per cent of young people reaching the NVQ level 3 -- A-level or equivalent—by the year 2000. It was expected that enrollment in higher education would grow to represent 30 per cent of the relevant age group. In fact, higher education enrollment increased more rapidly than expected, partly owing to an expansionary funding policy. But, there also has been increased participation via non-conventional routes (among which, those with NVQ/GNVQ, the volume of which is shown in Annex 1); Alan Smithers and Pamela Robinson, in a report prepared for the Council for Industry and Higher Education (CIHE), observed that on the basis of present trends over half of higher education entrants could come without *academic* qualifications.[8] Diversity in backgrounds is reflected in a different way in the case of Virginia, the U.S. state examined in the OECD thematic review. As already mentioned, more than 70 per cent of secondary school students expect

[8] Smithers, Alan, and Robinson, Pamela. 1995. "Post-18 Education: Growth Change and Prospect". CIHE Executive Briefing. Council for Industry and Higher Education, London.

to attend college immediately on high school graduation, but perhaps three-fourths of these students actually follow a curriculum leading to the 'advanced' or academic high school diploma which provides a better preparation for the full range of tertiary education options.

A range of strategies and responses to meeting diverse demand may be found in the OECD area, and developments on more than one of these fronts can be seen in many countries. It will suffice here to provide an illustrative listing (some already mentioned):

- reinforcing vocationally-oriented, tertiary-level programs offered in a distinct sub-system of institutions, in France, Finland, Germany, Australia, Portugal, Switzerland, Japan, New Zealand and to a lesser extent the United States, and in development in the Czech Republic;
- stimulating the development of more distinct institutional profiles within a single system, as in Sweden, Australia, the United Kingdom and generally the United States;
- upgrading from secondary to tertiary level "professional" programs or institutions, as is the case with nursing in Australia and Italy and primary school teacher training in France and other countries;
- introducing short university study programs, such as Bachelor's degree studies, in Denmark and the Czech Republic and under consideration for introduction and expansion in France, Germany and Italy (among other continental European countries);
- providing favorable conditions, if not direct or indirect financial support, for the establishment and development of distinctive programs within a parallel private sector, as in Japan, the Republic of Korea, the United States and Portugal, and to a much more limited degree in France and more recently in Germany;[9]
- integrating within conventional university study programs vocationally-oriented work modules, "applied or integrated studies" or work experience, as in the United Kingdom, the United States and France;
- experiencing, with greater or lesser oversight, the expansion of participation in tertiary-level studies through institutions or means other than formal tertiary education institutions, such as TAFE institutes in Australia, further education colleges in the United Kingdom, various free-standing distance education and other alternative mode options in the United States (and other countries);

[9] A specific example is the new International University in Germany. This is a private institution, which has accreditation for Master's level programs in information technology and will offer MBA study programs as well. All programs will be taught in English, and students and staff will be recruited internationally. Faculty is being chosen on criteria, which give weight to teaching and contracted on terms of employment established by the university. The state authorities (not federal) are providing some start-up funding, but it is expected that the university will be fully supported from private sources: students will pay DM18 000 per year, to be matched by corporate contributions. The corporate interest is partly pre-recruitment and partly broad development of a pool of highly qualified potential employees in fields of rapidly growing demand. Some German analysts, while acknowledging the importance of the development, believe that these types of institutions and programs will comprise a very small share of total enrollment and provision in the country.

- encouraging or permitting cross-segment and cross-border co-operation, to include franchising in the United Kingdom, specific articulation arrangements in New Zealand and the United States, joint degree/diploma programs in Japan.

The point is that within countries a very wide range of approaches have been used to diversify tertiary education learning options. In this respect, it is interesting that while much attention is given to the first two of these developments—policies related to binary or unitary structures—there appears to be as much innovation, response and reaction to introduce or extend diversity in ways that do not depend on the system-level structures in place. The diversification goes beyond formal differentiation among types of institution: so-called non-university institutions offer programs to advanced levels, award qualifications of the same type and undertake research activities; universities build vocationally-oriented elements and practice-based approaches into teaching and learning, offer short degrees and carry out applied research.

In some cases, the initiatives are driven by the strategic interests of the institutions themselves. This is the case, for example, in Japan where some junior colleges anticipated further declines in enrollments of young women (the principal pool from which they enrol students), owing to heightened aspirations for Bachelor's degrees. Among other responses, some junior colleges now offer "post-graduate" course modules topped off with advanced course modules through the University of the Air to provide a new route to the Bachelor's degree. A second Japanese example is the double qualification offered through closely-integrated study programs developed jointly by special training colleges and private universities. Students completing such a program reduce by one or two years the time required to complete the two programs separately, and they receive both an academic qualification from the university alongside a strongly employment-related qualification from the special training college. If the numbers of institutions and students affected are modest, the initiatives nonetheless signal a responsiveness to a demand which seeks a more varied mix in learning content, styles and acquired skills, knowledge and dispositions.

Even in segments and countries with less flexible arrangements or seemingly less scope for responsiveness in study programs, that demand is being satisfied, to a greater or lesser extent, through the choices of students. The blending and blurring of qualifications and learning, at the initiative of students, may be seen, for example, in the combination of vocationally- and employment-oriented qualifications combined with academic qualifications in Germany, Australia, the United States, France and the Netherlands as well as in Japan; in double degrees in Australia; and in professional Master's degree to follow on a liberal arts Bachelor's degree, in the United States.

To take the Dutch case: increasing numbers of graduates from higher professional education (HBO, non-university higher education) have continued on for a university degree. This tendency was reinforced in the late 1980s by a provision, which allowed and provided funding for universities to offer abridged study programs for these students. The intent of the new provision was to cut study time for students pursuing "multiple degrees"; one result was also an increase in the numbers of students. The

provision has subsequently been eliminated and tighter restrictions on the duration of eligibility for study support mean that the possibilities for acquiring two degrees are greatly reduced. Yet, the demand is there. As expressed in a report submitted by the Dutch Ministry to the OECD:[10]

> "... more and more young people are making use of the opportunities provided by the education system to alter the direction of their studies. Young people and their parents do not regard 'stacking' of qualifications or the practice of changing the direction of their studies as a disadvantage. Instead, they are seen primarily as a way of keeping options open and of re-adjusting study choices. Young people not only accumulate qualifications to improve their academic credentials, but also because they are unsure about which courses to choose. [Particularly those from higher social backgrounds] tend to use their educational opportunities in two ways: either by specifically choosing to carry on studying the same subjects at a higher level or by utilising their freedom to review their options."

This more dynamic perspective of the impact and consequences of student choices is offered also by the OECD team undertaking a review of the first years of tertiary education in France. They note that, while great stock is placed in education, young people and their parents increasingly realise that participation in tertiary education no longer provides a 'sure thing'. So, to reduce risks and to boost position on the labor market, choices are being made among first years' study options which sometimes run contrary to expectations or subvert the intent of policies, institutions or programs. The French case is instructive, and it will be useful to draw from the report of the OECD review team (in process) and analyses provided elsewhere to describe the structures and choices in somewhat greater detail.[11]

France provides for a very wide range of tertiary education options in the first years. In addition to conventional university studies (and recently developed vocationally-oriented programs within the universities), qualified students may choose to enter specialised, vocationally-oriented short cycle studies in university-level *instituts universitaires de technologies* (IUT) or certain tertiary-level studies organised within some secondary schools (*sections de techniciens supérieurs*- STS, *cours préparatoires aux grandes écoles* - CPGE). The particular balance between selective and open access options in French tertiary education defines those choices, and has led to a mismatch: student interests and backgrounds are not necessarily catered for in the programs in which they enrol. The mismatch is observed in patterns of enrollment in IUTs, STSs and the first cycle studies of universities. Selection figures in vocationally-oriented short cycle programs provided in the IUTs and STSs. These programs lead directly to qualifications recognised on the labor market, while the most common diploma awarded at the conclusion of the first cycle of university studies, the DEUG, is not so recognised.

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[10] Ministry of Education and Science. 1995. "The Demand for Tertiary Education". Contribution by the Netherlands to the OECD Project on Mass Tertiary Education, processed, p. 15.

[11] OECD (in process). 1996. "Examen thematic de l'enseignement tertiare. Rapport de pays". OECD, Paris; OECD. 1996. *Reviews of National Policies for Education.* OECD, Paris ; CEREQ. 1995. L'insertion professionelle des diplômés de l'enseignement supérieur se dégrade, *CEREQ Bref,* no. 107, p. 3.

Programs provided in the IUTs and STSs generally are better resourced than first-cycle university studies and usually offer a practice-based approach to teaching and learning. Further, these programs also enable successful students to continue studies in the second cycle at universities.

In the present uncertain economic and employment environment, the selective IUT and STS options are attractive to all those with the *baccalauréat*, including those who have followed the general stream usually destined for the university or CPGE. As the selection process relies on academic qualifications, those from general streams are more likely to be accepted than those from technical and vocational streams. The result is that more than three-fifths of IUT students and about one-fifth of STS students come from the general *baccalauréat* stream and significant numbers of those for whom the programs are intended—secondary school leavers from technical and vocational streams—have been unable to secure places. If they wish to continue studies at the tertiary level, these students must do so in the universities where there is open access.

While there are other purposes and impacts to be considered and recent policy initiatives and wider economic developments which need to be taken into account, the patterns reveal both the ways in which student choices "blur" the boundaries of programs and signal some of the problems which arise. In the French case, students with technical or vocational secondary education backgrounds are enrolling in first cycle university programs as a second, third or lower choice; they often experience difficulties in study programs which have been conceived and organised with different aims and methods than those preferred by these students.

At the policy level, governments, which have supported distinctive types and forms of institution and programs, at the same time have put in place incentives and arrangements which foster a blurring of those distinctions. The Dutch case is partly a reflection of these seemingly contradictory policy directions, but mention could be made of New Zealand's aim for a "seamless" education system. While there are distinct tertiary segments of university, polytechnic and college of education, a broad and generally open approach to provision promoted strongly to the present through the overarching Qualifications Framework for standards ('unit standards') and recognition established by the New Zealand Qualifications Authority. Such an open approach permitted individual institutions to advance their own courses (against more explicit standards) and to seek their own strategic partnerships, which led to a blurring and crossing of the divides between the segments and across levels. In a different form but nonetheless reflecting a similar tendency, Denmark's Centre for Quality Assurance and Evaluation of Higher Education (CQAEHE), which has covered all of tertiary education, is expanding its remit to cover all levels of education. It is noteworthy that in a White Paper released in November, the New Zealand Minister of Education announced his intention to bring under a new Quality Assurance Agency oversight for all aspects of standards and quality assurance and, in so doing, to modify the role and nature of the work of the NZQA. In a number of countries, the blurring is reinforced through various articulation and franchising arrangements observed in a number of countries.

In the face of this diversity—whether promoted or permitted by policy or driven by students—raises new questions about coherence, transparency, standards and quality. On this, as expressed elsewhere, programs and learning options need not be developed solely in response to demand. Public and employer interests and the key role of those in institutions to assist learners in acquiring knowledge and skills in ways which are coherent and transparent imply a need to take into account other interests and expertise. How to do this is at the heart of emerging approaches to standard-setting and quality assurance, in the United Kingdom, New Zealand and Denmark; also in the roles and functioning of institution and tertiary sector-wide governance structures which bring in outside stakeholders.[12]

Overcoming Gaps in Access

To note the achievements in providing for more, and more diverse, opportunities—in some cases, representing both a substantial effort and quite profound shifts in the balance of learning at this level, with consequences, impacts and difficulties which are still being addressed - is not to suggest that all needs have been met and gaps eliminated. Among others, three dimensions of access need to be addressed: persistent differences in access by socio-economic status; patterns of participation in tertiary education by age; and regional variations in access to tertiary education.

Although expansion has been advanced in several countries as a means to bring into tertiary education those who are under-represented, *differences in the social and economic mix* of students persist. While enrollment of students from low social and economic groups have increased, so too have those from groups already well-represented in tertiary education. The net result appears to be a distribution of students which looks about the same as before expansion. The basic pattern is indicated by analyses from a set of comparable surveys undertaken in ten countries by the OECD and Statistics Canada.[13] In all countries, having a well-educated parent (tertiary-level qualification) increases the likelihood of undertaking tertiary education than if one has poorly educated parents. Overall, those differences range from 2 to 6 per cent. In six of the ten countries, however, those probabilities were higher for a younger age group (26 to 35 years of age) than for the older age group (46 to 55 years of age): that is, the gap between participation rates for individuals with different family backgrounds (given by educational attainment of parents) had increased, not narrowed.

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[12] Wagner, Alan. 1998. "Students at the Center of the Education Paradigm: Changing Patterns of Demand". Paper prepared for Australia seminar on OECD Thematic Review of the First Years of Tertiary Education, 19-20 April, Sydney.

[13] The data come from the OECD and Statistics Canada International Adult Literacy Survey (IALS), 1994-95. A common survey was administered along with an instrument to assess literacy skills in each participating country. The results reported here are based on a re-analysis of the panel data for ten countries.

Increased probability of acquiring a tertiary education qualification for individuals whose parents have also completed tertiary education, compared to individuals whose parents have not completed secondary education

	Total (16-65)	Younger age (26-35)	Older age (46-55)
Australia	2.0	2.4	1.9
Belgium	3.3	2.6	4.4
Canada	2.4	2.9	2.2
Germany	2.3	2.9	2.4
Ireland	4.8	m	m
Netherlands	3.3	3.3	4.3
New Zealand	2.1	2.8	2.0
Poland	5.8	6.6	m
Sweden	2.2	2.8	2.6
Switzerland	4.3	4.3	5.6
United Kingdom	2.9	3.3	3.1
United States	3.3	3.6	4.6

Source: OECD. 1998. Education at a Glance: OECD Indicators. OECD, Paris.

These broad findings are consistent with some country-based analyses. In the United States and, less clearly, Japan, the evolution of large volume participation has apparently not reduced long-standing differences in rates of participation.[14] In Japan, there is apparent stability in the distribution of students by family income. Although the data seem to suggest students with different family incomes are represented in higher education in rough relation to their shares in the population as a whole, some analysts believe that there are errors in the underlying family income data which, if corrected, would reveal uneven rates of participation.[15] This seems also to apply in countries, which have recently experienced expansion. In Australia, for example, the proportion of new

[14] For the U.S., see, e.g. Kane, Thomas J. 1995. "Rising Public College Tuition and College Entry: How Well Do Public Subsidies Promote Access to College?". National Bureau of Economic Research, Working Paper No. 5164; Mortenson, Thomas G. 1996. "Chance for College by Age 19 by State in 1994". Postsecondary Education Opportunity No. 49, The Mortenson Research Seminar on Public Policy Analysis of Opportunity for Postsecondary Education, Iowa City, Iowa; McPherson, Michael S., and Owen Schapiro, Morton. 1998. *The Student Aid Game: Meeting Need and Rewarding Talent in American Higher Education*. Princeton University Press, Princeton, N.J.; McPherson, Michael S., and Owen Schapiro, Morton. 1991. *Keeping College Affordable: Government and Educational Opportunity*. The Brookings Institution, Washington, D.C.

[15] Kaneko, Motohisa, and Kitamura, Kazu. 1995. Towards Mass Higher Education. Access and Participation: Country Case Study - Japan. Processed. Ministry of Education, Science and Culture, Tokyo.

students from the lowest socio-economic groups dropped from 15.7 per cent in 1990 to 15.5 per cent in 1996; over this period, new enrollments increased by 30 per cent.[16]

A conclusion to be drawn here is that expansion alone appears not to be sufficient to reduce differences in rates of access of learners from different social and economic groups. A further conclusion is that access must be considered in relation to the options actually entered. In the French case, for example, those following certain *baccalauréat* streams were more likely to find themselves in second, third or lower choices. A similar situation arises in Portugal. Moreover, differential rates of access are more pronounced in certain segments: the CPGE entry routes into elite *Grandes Ecoles* in France are dominated by sons and daughters of senior managers in industry and civil servants who are themselves graduates of these institutions and teachers who have knowledge of the examination and selection processes.

Differences in rates of participation among *regions* present a second area of policy concern. The concerns relate as much to regional economic development as to access, although in different countries (and regions within countries) the access issue is given greater weight. In many countries, regional differences reflect socio-economic differences so that concentrations of wealth and diverse economic activity in urban centres have tended to lead to concentrations of tertiary education provision in those areas (France and Denmark, for example). Leuven University in the Flemish Community of Belgium enrols 40 per cent of the system total, Gent University enrols another 25 per cent; six other universities divide the remaining 35 per cent. A common policy approach has been to engage in purposeful siting of new institutions. In Flanders, Limburg University was established in a poorer, agricultural area to the northeast in part to raise what were relatively low rates of participation. If participation rates remain below those found in Brussels, Antwerp and Gent, they are nonetheless believed to be higher as a result of the placement of a university in the region. A similar, comprehensive strategy was adopted in France as part of a broader plan to spread public administration and public services outside of Paris. The plan *Université 2000* provided a framework and financial support for the development of higher education throughout the country; the plan encouraged regional administrations to contribute financially to the capital project and, broadly, the enhancement of student life.

If the French plan was successful in providing the *université de proximté*, there are risks of overly parochial, narrowly specialised and relatively costly programs of uneven quality partly arising from the relatively small size and breadth of the local institutions. In the light of such risks, authorities in several countries have moved strongly toward consolidation and amalgamation, while retaining a regional focus. In Australia, for example, a set of separate sites operate as the University of Central Queensland. In Flanders, reforms in funding set a minimum size for a college of higher education; mergers reduced the number of such institutions from 160 to 29. The same issue arises for university-based education in Flanders as well, where a review seeks to find ways to reduce the number of departments with very small enrollments. An

[16] Meek, V. Lynn, and Wood, Fiona. 1998. *Managing Higher Education Diversity in a Climate of Public Sector Reform*. Department for Employment, Education, Training and Youth Affairs, Canberra.

interesting approach developed in the Flemish system is the 'super-structure' of the University of Antwerp, which links up three separate institutions in ways which go beyond the 'arm's length' co-operation that has existed in the city for a number of years. The 'super structure' has provided a means to bring together institutions with different philosophical or religious orientations, a feature and manifestation of the principle of freedom of education in the Flemish society. France, through its 'contracting' policy, encourages inter-institution co-operation through funding provided to a *pôle universitaire* in some urban areas which operates as a form of super-structure to provide a stronger base for working with local industry and cross-border links as well as in the provision of services. There is less evidence, however, of direct co-operation in teaching and learning. Sweden and Norway both have in place arrangements for institutional linkages in support of teaching and learning; in the Swedish case, between university colleges and universities; in Norway, in concept, through Network Norway to link all tertiary education. The Norwegian case is interesting as an example of the need to strike a balance among improving access and supporting regional development on the one hand, and providing learners with a comprehensive foundation of tertiary education on the other. Those with such foundations have advanced skills, knowledge and dispositions, which may be applied in other regions and the wider international setting, and so are more likely to migrate to urban centres. The Norwegian solution is local sites, supported by expertise and teaching provided from other institutions.

An important new development is the selection, as part of a strategy for enhancing 'regional' access, of *urban* sites for new institutions. This is the case in Sweden, where new institutions have been sited in parts of Stockholm where participation rates are relatively low. Similarly, the University of Western Sydney (Australia), although comprised of pre-existing educational institutions, has developed in the outskirts of a city seemingly well served by tertiary education institutions. Its campus sites, however, are in areas where participation rates have been low. A possible implication of expansion to very high rates of participation is that 'regional' policies for access will focus on pockets of low participation, including those in urban areas.

Finally, differences in participation rates by *age* have become a matter of policy interest, even as there has been increases in the rates of participation by adults in their late 20s. For university studies alone, age at first entry varies substantially with France and Ireland as examples of countries in which most first-time entrants are young, and New Zealand and the United Kingdom as examples of what could be termed a 'lifelong learning' model in which significant numbers of both young and older adults enter for the first time: In France, 80 per cent of first time entrants have enrolled by age 20; in the United Kingdom, the comparable age is 28. The country experiences and data call into question the focus on immediate rates of entry (e.g. rates of participation of 18 to 24 year olds): a lifelong learning approach could aim to foster for some learners delayed entry into tertiary education (i.e. reduced participation rates for 18 to 24 year olds) even as participation rates for a generation, over the life cycle, increased. Such an approach would need to give attention to the choices and experiences of young people on the completion of secondary education: employment; forms of national service, Americorps in the U.S. or, for a different reason, the French initiative for *emplois-jeunes* could be

conceived more strategically as means to provide experience which, eventually, enriches tertiary-level studies and learning. Sweden's 25-and-4 scheme in the 1980s had just such a vision: places were set aside for adults at least 25 years old and with 4 years of work experience. Early experience revealed unintended consequences: a significant number of young people delayed entry just to age 25 in order to improve their chances of entering programs where demand greatly exceeded the number of places. With the opening up and expansion of tertiary education in the 1990s, the need for such a 'protected' route for adults diminished even as adults now account for a smaller share of first time entrants (the present high shares of adults in overall enrollment reflect increased rates of staying on).

Not all countries seek to directly accommodate or steer adult demand. In New Zealand, where there has been a long tradition of adult participation in tertiary education, a 'study-right' policy was adopted in the early 1990s with the specific aim to encourage institutions to enrol *younger* students. For each first-time student under 22 years of age, institutions were provided with 95 per cent of the base tuition subsidy with eligibility extending over three years; students not meeting these criteria attracted 75 per cent of base funding. The 'study-right' provision has had unintended consequences of relatively lower subsidy levels at institutions which cater to target populations; it is under review. In other countries, options have been opened up for adults, even if they must pay for it. In Portugal, as already indicated, it is the private institutions, which have largely catered to the demand of adults, usually at night. In Denmark, tertiary education institutions now offer as Open Education at night and for a modest fee, study programs, which parallel those offered to regular students during the day.

These policies and practices betray a certain ambiguity in the orientation of systems and institutions in response to demand and growth in tertiary education. OECD countries have yet to fully grapple with the question: what does it mean to be qualified for tertiary education, when half or two-thirds of a cohort are undertaking studies at this level? Such high rates of participation reflect diversity in capacities, backgrounds and needs on the one hand, and a wide range of interests on the other. The issue is not whether students are well-prepared—higher, even near universal, rates of secondary school completion represent one of the major achievements of education systems in the OECD area; rather, it is whether programs, teaching and learning are sufficiently well-tuned to those varied abilities, needs and interests presented in classes and laboratories when participation extends much deeper into each age group. This view provides one way through the seeming paradox of unfilled places even when demand from those qualified exceeds supply and, at the same time, a concern about a lack of qualified entrants. But, there is a further consideration, raised by the OECD review team examining tertiary education in Virginia (United States). Once participation rates reach 70 to 80 per cent, is there not a case for inducing the remaining 20 to 30 per cent to undertake some form of tertiary education? Perhaps best seen as a longer term consequence of the expansion of participation in tertiary education, the argument for a pro-active approach to encourage near universal participation re-casts issues of access and re-frames policy approaches and options for teaching, learning, staffing, quality and standards.

Reforms in Programs, Teaching and Learning

Expansion and growth in participation lead on to new challenges for teaching and learning of students, once they enrol. Evidence of difficulties may be seen in drop out rates and delays to degree or diploma completion. Rates for on-time completion vary from an estimated 81 to 35 per cent, across 20 OECD countries for which data are available. There appear to be somewhat lower estimated rates of on-time completion in countries with long first degrees (although this is not true in all countries offering long degrees, as is indicated in the Hungarian case), and no apparent association between completion rates and rates of participation in tertiary education. With regard to the latter, for example, both Japan and the United States have high rates of participation; the completion rate in the United States is 63 per cent, compared to an estimated 90 per cent rate in Japan.

What is not known is the extent to which expansion, especially rapid growth, is associated with increased rates of failure and drop out. Estimated rates of failure in Belgium (French Community) and Germany were higher in the early 1990s than at the beginning of the 1970s. In both countries, participation in the first years of tertiary education increased over this period.[17] In general, the available information is insufficient to provide a clear view of the comparative experience.

Although these estimates provide one indication of underlying difficulties encountered by students in their study programs, they do not reveal fully the extent or nature of the problems. In Belgium (Flemish Community), some students who do not succeed in examinations at the end of the first year eventually advance to a qualification in that program. These students boost the eventual success rate from 50 per cent to 70 per cent. In Denmark, while 40 per cent of students commencing a first degree program fail to complete it, about 15 per cent of the entering cohort switch programs and eventually acquire a tertiary education qualification. The actual 'failure' rate is about 25 per cent. In Italy, it is estimated that of the 23 per cent who leave tertiary education early in the program (about one third of the total) never attended a lecture or sat an exam.[18] Some students leave early to take up attractive employment opportunities, for example from information technology programs in the U.S. These individuals might well return to tertiary education to complete a degree program at a later date. All of these cases raise questions of the effectiveness and efficiency of provision, even with the improved outcomes noted. Good information in this area is lacking, in almost all countries.

Whatever the considerations and perspectives to be taken into account, at least a part of the problem is programs and teaching poorly attuned to the capacities, needs and interests of tertiary education learners. In a number of OECD countries, policy priorities have moved beyond meeting the quantitative demand and promoting access to addressing the need to reform programs and teaching in order to improve learning for a much larger volume and wider diversity of students. Notwithstanding the broad reflection and

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[17] Moorgaat, J.-L. (1996), *A Study of Dropout in European Higher Education*, Council of Europe, Strasbourg.

[18] Moorgaat, J.-L. (1996).

reforms directed at tertiary education in the OECD area, however, substantial changes in the form of revised contents within new and existing qualifications have yet to be fully realized and adaptations in the learning experience of students has been uneven. The problems are recognized, and initiatives are everywhere evident.

With regard to *contents and qualifications*, initiatives can be identified on several fronts. A particularly interesting new policy which is gathering some momentum in continental Europe is the introduction of three-year Bachelor's degrees in systems which have had only long first university degrees.[19] The most explicit rationales for new Bachelor's degrees are to ensure that there is a formal qualification for those who may wish to leave prior to the long degree and to encourage the development and choice of a tertiary education option of shorter duration (and presumably, lower overall cost per earned degree). The Bachelor's degree is being given an additional boost by pressures for greater recognition, if not comparability, of qualifications across the European Union and, more specifically, by the initiative undertaken by Ministers of Education in France, Germany, Italy and the United Kingdom to 'harmonise' qualifications among their countries primarily through a shorter, first degree (the Sorbonne agreement). The Bachelor's degree is seen to have wider international currency as well, thus improving for those countries adopting such a qualification the possibilities to recruit foreign students, to facilitate mobility and continuation of studies for domestic students and to boost the recognised quality of tertiary education studies and programs.

While the policy intent is clear, implementation has not been straightforward. In the Danish case, for example, the Bachelor's degree was introduced by the Ministry as a new qualification within the existing structure of degrees. In engineering, the content, position and distinctive aims of the Bachelor's degree are well-elaborated and understood by institutions and employers. But, in most fields, the Bachelor's degree has developed as little more than the first three years of a long first degree of five or six years. For this, and other reasons, it is not seen as an attractive qualification by either students or employers.[20] In its initial implementation, little thought was given to a re-conceptualisation of the degree as a coherent set of studies leading to a qualification in its

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[19] In most of the countries concerned, the Bachelor's degree has been introduced in universities. In Portugal, prior to 1997, polytechnic institutes offered the degree of *bacharel* and, under some conditions, the main long first degree, the *licenciatura*. On the basis of changes in the frame law, polytechnic institutes and universities now can award both of these first degrees (in the case of the *licentiatura* awarded by polytechnic institutes, certain conditions apply).

[20] Another important reason is the structure of incentives for employers to hire Bachelor's degree graduates and students to leave the university before completing the long Master's degree. As reported by the OECD review team examining tertiary education in Denmark: The narrow salary differential between the two degrees provides limited incentive for employers to recruit Bachelor's over Master's degree holders. Lacking job opportunities and given the broad base of student support available, students choose to continue on to complete Master's degrees on completion of Bachelor's degree programs. In the early 1990s, the government introduced an experimental "ice breaker" program to offer an "appetizer" of 11,000 crowns per month to employers for each new hire of a graduate of a three-year program (including Bachelor's degree holders). Half of the 2, 000 graduates recruited under the program remained with their firms after the government subsidy was withdrawn. This would appear to indicate that employers found graduates of three-year programs productive, once on the job -- the initial barrier to recruitment being the salary level and differential.

own right. An interesting development is the initiative undertaken by some teacher training colleges to organise in co-operation with universities a study program which leads to a Bachelor's degree. The new option is seen as a way to strengthen the quality and to boost the attractiveness of preparation for and entry into teaching, particularly in mathematics and science. More generally, the Ministry has supported proposals to add a vocationally-oriented six month module to some programs for those wishing to enter the labor force, but this has not led to further reflection on how to integrate changes in contents, contexts and methods into the three-year program.

Another line of policy attention is a much stronger focus on the setting of more explicit, clear learning objectives for tertiary-level studies. This focus also embraces efforts to bring about changes in the contents and relevance of studies, in both new and traditional degree programs. Countries have progressed at different rates along these lines, with varying success. Some examples:

- In the United Kingdom, the Graduate Standards Project (GSP) of the former Higher Education Quality Council (now incorporated into the new Quality Assurance Agency, QAA) is one such policy-driven effort in this area. The GSP undertook to develop and define "graduateness", by which is meant what all higher education graduates should be expected to know and be able to do. While such an approach could lead to the elaboration of more specific standards for all degree programs, a provisional conclusion of the project is that standards need to be developed in relation to the objectives of individual study programs. In the U.K. and elsewhere, it has not proven easy to formulate clearly nor to find agreement on what common, generic abilities or skills might be for tertiary-level graduates. The process of elaborating standards continues under the QAA, through a benchmarking process to establish "threshold standards" which articulate the abilities and skills expected of Bachelor's graduates in different subjects and continuing development toward a more comprehensive, transparent qualifications framework. The latter provides a counterpart to "uniform" national degrees in continental European systems (there are no national qualifications as such in U.K. higher education).

- A parallel development may be seen in the United States, where a wide range of tertiary education institutions have undertaken reforms of the "general education" component of the Bachelor's degree. Departing from an approach which permitted wide choice and reflected weak coherence, institutions are now elaborating learning objectives for the first years of the degree program and seeking to harness studies within individual course modules to those objectives. Such a shift in thinking opens up new possibilities for a re-consideration of entry standards. In the U.S., the wide diversity which accompanies the very high rates of participation in tertiary-level education provides justification for even more flexible entry routes and even, as raised by the OECD review team examining tertiary education in Virginia, a 'blending'

of existing 'remedial' education into a learning-outcomes oriented approach to general education for all students.

- In France, the United States and the United Kingdom, efforts to reinforce vocational and professional elements in tertiary education may be noted. In France, this takes the form of expansion of short-cycle programs in the IUT and STS; the introduction of parallel *instituts universitaires professionalisés* (IUP) in the universities; expansion of third-cycle specialized studies which follow on the completion of the main long degree.[21] On the evidence, students who participate in practical, organized work experiences in the course of their first degree studies fare better in the competition for jobs. While part of this may reflect self-selection, it is likely that the internships do enable students to boost skills, which improve employability. However, there appear to be difficulties in integrating more widely this type of approach: co-operating employers are not uniformly providing the high quality and supervised experience that best fosters learning; at the program level, expertise as well as incentives to plan and monitor the internships are limited and uneven.

- In Japan, reforms advanced by the University Council included an effort to better integrate general education in the first two years of the Bachelor's degree with specialized studies in the last two years and to break down narrow disciplinary boundaries. The reforms were to be undertaken by the universities, freed up from previous specific curriculum guidelines provided by Monbusho and based on self-evaluations. In spite of a wide range of documented activity, there is little evidence of substantial change in teaching and the student experience. It appears that curricula in some universities became more, rather than less, specialized and uni-disciplinary in focus.

- Reference has already been made to changes in the role and functioning of one of the most explicit, centralized initiatives to elaborate detailed standards and learning outcomes, the Qualifications Framework in New Zealand. Those changes introduce greater flexibility in, and different perspectives for, the elaboration of standards for different types and stages of education and learning.

This survey of developments concerning changes leading to revised contents within new or existing qualifications and study programs indicate a very fluid field, where aims are not fully sorted out and implementation is problematic. The matter of what graduates should be expected to know and be able to do is not settled: different interests are now even more strongly at play, among which the public, professional associations and employers as well as those who teach and undertake research within academic departments and tertiary education institutions. Neither are students passive in this area,

[21] There is, in addition, a targeted program intended to reduce youth unemployment, *emplois-jeunes*. The program provides work experience for those who have completed some or all of their education. In the first year, about half of those working as teacher aides in schools have some tertiary education (bac + 2, license or more).

as their decisions to combine learning options in one sense "define" the profiles of skills and knowledge on the labor market. It is in this light of increased diversity, of programs as well as learners, that new thinking on qualifications, program contents and the concept of standards is taking place. Diversity is increasing the need for clarity, transparency and coherence and may, in fact, be working at cross-purposes to these aims. In some countries, the balance is being worked out through quality assurance bodies or advisory councils with responsibilities which span and engage the broad array of provision and providers: *Comité national d'évaluation* in France; Quality Assurance Agency in the U.K.; the developing evaluation system in Portugal, which is being extended to the private sector; and New Zealand's Quality Assurance Agency as well as Denmark's Centre for Quality Assurance and Evaluation in Higher Education, both of which are, or will (with respect to the CQAEHE), cover all levels of education.

With regard to stimulating *improvements in teaching and the student experience* to boost learning, countries have taken steps along a broad front. The most prominent and common policy drive is quality assurance, which takes somewhat different forms and incorporates different elements in different countries.

- The most common approach is to oblige tertiary education providers or programs to undertake self-evaluation against set criteria which are developed for the system as a whole, but elaborated in greater detail at the institution level. This is the case in Japan. In Denmark, Portugal, the Netherlands and Belgium (Flemish Community), the self-evaluations are backed up by an external review process engaging academics as well as specialists from outside the institution and students (among others) which confirms both the presence of quality assurance mechanisms within institutions and provides an assessment of quality per se. Another approach may be found in Belgium (Flemish Community), where the Inspectorate monitors quality for the one-cycle colleges of education through a comprehensive data collection and analysis, based on surveys of staff, students and former students and a complementary process of site visits and discussions with program managers and staff.

- Students now figure in quality assurance in several countries, through the use and (sometimes) release of evaluations of courses, teaching and teachers. The results of such evaluations may be used in different ways, but the process itself draws the attention of students and staff to the conditions, relevance and quality of teaching. Where there is scope for students to choose among tertiary education options and modules, within and outside of individual institutions and programs, variations in demand serve as a signal of quality as well as of relevance, employment prospects and preferences. "Exit" examinations figure most prominently in professional fields, depending on the country in one or several fields such as engineering, law, accounting and health professions. Australia's Minister of Education proposed, in April, an "exit" examination of tertiary education graduates, with the expressed purpose of demonstrating the quality of the country's higher education system internationally. His specific

proposal is to administer an examination similar to the ETS Graduate Record Examination (GRE), a test which is widely used in the evaluation of applicants for admission to post-graduate studies in U.S. universities.

- In several countries, funding has been tied to quality initiatives and realized outcomes. In the mid-1990s, a Committee on Quality Assurance in Higher Education (CQAHE) in Australia awarded AUS$70 million to institutions based on evaluations of submissions from the institutions concerning quality initiatives which had been implemented at institution and program levels. The assessment exercise led to rankings, which also raised the profile of quality issues and efforts in wider community. A more modest program, the Committee for the Advancement of Undergraduate Teaching (CAUT), offered grants awarded on a competitive basis for pilot and experimental projects aimed at improved teaching and learning. Other countries, among them Denmark, Finland and Sweden, incorporate performance-based elements in their funding mechanisms (degrees awarded, examinations passed).[22] These are blunt instruments, in comparison with the Australian initiatives. In the three countries mentioned, the incentives introduced in the funding arrangements are backed up by quality assurance processes.

- Finally, in some countries, quality assurance initiatives have been targeted specifically at teachers. In the United States, "post-tenure" review has been introduced in some states. In processes adopted at the two largest universities in Belgium (Flemish Community), evaluations of individual teaching figure into promotion decisions; some teachers have been re-assigned on the basis of the evaluations. In Portugal, the new evaluation system has specifically directed attention at the evaluation of teaching staff; a refined instrument for this purpose will soon be available for institutions to use.

These developments reveal a continuing evolution of quality assurance practices, which have shifted from a focus on quantitative indicators toward a wider mix of approaches and inputs to promote and support quality and relevance as well as to document strengths and gaps. For all quality assurance processes, concerns are being raised about the overall costs of the effort; whether attention is sufficiently directed to teaching and learning, rather than to inputs and mechanisms; and the benefits actually gained in terms of improved effectiveness, greater transparency and efficiency (enhanced, if the results are provided and followed up in a timely manner).

Policies have also been directed at staffing, including staff profiles and development. Staffing ratios vary across the OECD, and now reflect a wide range of influences. In some cases, funding channels have shifted from input to enrollment or output/performance; in other cases, there are changes in the mix of programs and in the organisation of teaching and learning. Redeployment in New Zealand, for example, may

[22] More detailed discussions of the funding approaches may be found in OECD. 1998. *Redefining Tertiary Education.* OECD, Paris; and in the country notes prepared by OECD review teams for each of the countries participating in the thematic review.

be observed within individual institutions and programs where, for example, administrators opt to place in large first year classes teachers who are particularly skilled for teaching in large groups. The benefits are not only improved learning, but also a strengthened resource base owing to increased rates of retention into second and third year classes. In Portugal and to some extent Switzerland, the staffing ratios established prior to expansion were retained, but there has been a diminution in administrative and technical/support staff relative to teaching staff and students. In France, the picture is complex, partly owing to the different rates of expansion in different types of institution. The supply of teaching and teaching support has been increased through: (i) an increase in the number of regular teaching staff; (ii) increase in overtime teaching hours; (iii) increase in the numbers of highly qualified teachers from secondary level in tertiary-level programs; (iv) establishment and increase in the positions of full- and part-time associated instructors for the vocationally-oriented programs, who retain their professional activities (part-timers, in particular); (v) establishment and increase of positions for temporary teaching and research fellows (ATERs), to teach tutorials; and (vi) establishment and increase in positions of peer tutors, i.e. second- and third-cycle students who provide assistance to first-cycle students. However, as in Portugal, increases in non-teaching staff have lagged the growth in enrollment, at a time when institutions are expected to adopt a more active strategy in support services, in libraries, resource centres and financing and administrative management.

Note should be taken of a new policy initiative in Germany, advanced most recently in the changes to the framework law, to require newly-recruited tertiary education staff to have completed pedagogical training as well as advanced studies and research in the fields relevant to their teaching.

Finally, some countries have targeted policies on changes in student support and the organisation of teaching and learning. Here, a listing of specific initiatives provides illustrative examples:

- a 10-point plan in Belgium (Flemish Community) which called for better provision of information to and orientation of secondary school students; improved guidance for first-year students; smoother transition to other courses after (partial) failure; and the equivalent of five per cent of each university's academic staff assigned to student guidance for the first candidature. The initial implementation of the plan was judged to be weak, and the Ministry undertook to re-launch its main elements in an effort to drive forward its more complete implementation.

- a range of changes in France aimed at better choices and reduced failure rates in the first year, among which: an intensive information campaign to secondary students and their parents to undertake a more careful (self) evaluation of career prospects and choices and related tertiary education options; a new semester approach in the first year of university which offers modules to develop study skills and to "sample" different subject areas, provides additional counseling and allows students to switch fields during the first year with little loss of time; additional student academic support

through the *tutorat,* in which older students assist new students; improved student life, through support for various activities. The initiatives are very recent, and at least thus far, there is little evidence of impact: little observed change in initial choices among programs as a result of the information campaign, and apparently less than 2 per cent of all students took up the possibility to switch fields at the end of the first semester.

- in the United Kingdom, the United States and to a more limited extent Belgium (Flemish Community), there are interesting examples of purpose-built facilities which bring together academic and counseling support, computing services, library services and student social activities and services. At one institution, the facility and its services figured prominently in the first year study program, which had as an explicit objective "to prepare students to learn in a constrained environment".

- in Australia, Japan, the United States, the United Kingdom, Denmark and Belgium (Flemish Community), there is mixed experience with the use of new information technologies. On the one hand, the penetration of computers and related forms of technology may be clearly seen (although in some countries more than others), the use of the possibilities afforded by the technologies remains limited. In Australia and Japan, the technology-based distance learning initiatives have partly had beneficial effects in reinforcing the quality of teaching in regular programs, as courseware is available for use by institutions as well as individuals. In Denmark, a new Center for Technology-Supported Teaching, which provides modest incentive grants on a competitive basis to encourage the take up the possibilities afforded by technology, clearly had attracted interest in the institutions. Still, apart from an impressive example of one university visited in Virginia (United States), OECD review teams generally commented on the weak instructional design and staff support for the use of technology in teaching and learning. What stood out in the university visited was the substantial investment in these latter features as well as in hardware and off-the-shelf software.

In sum, reforms directed at programs, teaching and learning have led to a wide range of initiatives having in common the aim to improve the relevance, quality and success of tertiary education students, in the wake of dramatically changed conditions: large volume participation, diversity in learner backgrounds, needs and interests and evolving demands from the economy and society, and evident pressures on the resource base. Policies in this area are perhaps best characterised as a consequence of expansion, a "second-generation" of policies to address the problems arising from the new conditions. Evidence of broadly implemented effects of different approaches is lacking, as policies continue to be formulated, implemented and refined on the basis of accumulating experience.

Costs and Financing

Matters of cost and financing arise in nearly all policy frameworks and initiatives aimed at addressing the challenges of large volume participation. Without entering into great detail on country policy approaches (details of which may be found in other OECD reports), it is useful to provide a brief overview of main trends across OECD countries and signal a few key issues which emerge.

The main trend to note is growth in tertiary education expenditure, when examined over the first half of the 1990s. The available data indicate growth in real public spending -- directly to institutions and to households and other private entities destined for institutions—in thirteen out of nineteen OECD countries; in two countries, real public spending remained roughly the same while in four, it declined in real terms. There has also is evident growth in real private spending for institutions, ranging from a 16 per cent increase in Japan where tuition fees in public and private institutions account for a major share of the resources to nearly 800 per cent (from a very small base) in the United Kingdom. Over this period, the data reveal a shift in the form of the public subsidy, with relatively greater increases in funding provided to households and others for them to spend on institutions.[23]

The data do not include other public spending to students, in the form of student aid or public subsidies to meet living costs, or tax expenditures for learners, employers or other third-parties. Nor do the data fully account for third party spending when, for example, employers organise tertiary-level learning options for their employees or others. These diverse sources of spending are attracting policy interest in a number of countries, partly in efforts to rationalise and target spending (when, for example, funding rates for comparable course modules differ depending on the sponsoring Ministry or agency or in the treatment of social welfare benefits of beneficiaries who are students), partly to leverage and attract resources from learners and third parties (as may be the case with selected tax expenditures) and partly in the course of adopting a 'tertiary-wide' and learner-centred view of provision and learning which extends beyond conventional higher education. In these other types and modes of tertiary-level learning, different and more varied funding means and levels come into play. An immediate difficulty is simply how to take account of the funding flows: should payments made under the Australia's Higher Education Contribution Scheme be evaluated on a present value basis, when the obligation of a stream of deferred payments is incurred, or each year on the basis of the payments anticipated? Both approaches have been used. The evaluation of tax expenditures and the subsidy component of student loans raise similar questions, which are only now beginning to be looked at in a comparative framework.

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[23] The distinctions are difficult to make, in concept and in the data. Funding can follow the student through direct institution-based mechanisms or through student aid provided to students to pay tuition fees. The data provided by OECD countries are not strictly comparable, in part because it is difficult in countries to apply the definitions. See OECD. 1998. *Education at a Glance: OECD Indicators*, OECD, Paris and OECD. 1998. *Education Policy Analysis 1998*. OECD, Paris (especially chapter 4) for details on the data and their use.

Quite apart from the information needs, several concerns arising from an environment in which funding streams are becoming more diverse and complex were noted at a recent OECD conference.[24] First, in order to permit tertiary education providers to respond to the funding possibilities which exist, there is a need to provide autonomy in decisions about the balances to be sought in funding from different sources and about resource use (and accountability for the use of the resources and outcomes realised). Second, there is a need to minimise the risk that the pursuit of efficiency gains may be taken too far, and so undermine the scope for providers to achieve identified outcomes. Declines in expenditure per student in some countries may be nearing this point. There is value in allowing a margin for experimentation and possible failure followed by re-direction; this applies to students as well as programs and institutions.

Finally, in this connection, new funding streams and mechanisms are bringing market forces more prominently into play in a number of countries. On this, some authorities have drawn back from a position of leaving the solution of demand and provision to "the market"; it is more appropriate to speak of market-based approaches in which governments intervene to minimize the risks of unintended consequences. One of those consequences is a failure to capture potential benefits of co-operation, when there is a possibility of a type of 'prisoner's dilemma': the sum of gains for institutions from maintaining a competitive position is less than the gains to be realized for the system from co-operation, yet individual institutions are reluctant to pursue the potential gains from co-operation if it is perceived to place at risk certain gains to each from the current position or to foreclose potential gains from squeezing out the competition (enlarging the size of programs, so as to make other programs less viable). The issue here is not whether institutions co-operate, but rather whether targeted intervention by government should be used to encourage and support new types of co-operation?

Conclusions

This account of experiences with expansion and large volume participation in tertiary education in the OECD area has advanced a view of a significant broadening and diversification of demand and response. There is evidence of policy reflection and initiative in a number of areas, and also of achievement: much higher proportions of young people and adults are participating in tertiary education and many of them are finding their way into learning options which respond to their needs and interests. Gaps and difficulties remain, and it is a conclusion of *Redefining Tertiary Education*, the report of the OECD's analysis of experiences in twelve countries with growth and large volume participation, that the forces at play imply a sweeping shift in orientation toward even higher levels of participation at the tertiary level, driven strongly by demands of clients rather than the supply-led expansion witnessed previously in most corners of the OECD area.

It is from this perspective that specific country developments, policy approaches and experiences have been selected and presented, both to indicate existing or emerging policy priorities and directions as well as to analyse the difficulties and omissions. The

[24] OECD (in process). 1998. "OECD/Federal Republic of Germany International Conference on Redefining Tertiary Education (Berlin, 29 June - 1 July 1998)". Report of the Conference. OECD, Paris.

focus has been placed on studies, teaching and learning, and principally in the first years of tertiary education where the pressures of growth, large volume participation and diversity are most evident. The research and service functions have not been examined here; there are important questions concerning activity directed at these missions, whether undertaken in parallel with, complementary to or as a joint effort with the teaching function. Interfaces and linkages already suggest that pressures on the teaching function will have impact on other functions.

It is, of course, not appropriate to draw specifically from experiences in the OECD area for direct application in Brazil. However, by way of conclusion, several main findings and directions are presented, which might offer ideas and perspectives for consideration in policy development in Brazil.

- Demand has become a key driving force, and it is neither possible nor appropriate to deflect it. A purposeful policy orientation is to anticipate and promote expansion, using public funding and frameworks to influence demand (via information, counseling and student finance) and to help shape 'tertiary-wide' and 'life-cycle' long provision. This is a strategic view of, as put in the Ministry of one country participating in the thematic review, "working with the flow". Policy approaches, in the form of funding arrangements, accreditation and quality assurance processes and qualification frameworks and articulation arrangements, seek to find the balance between demand and choice on the one hand and coherence, transparency and clarity on the other.

- No single policy approach addresses all dimensions of diversification needs, which emerge with expansion and large volume participation. Developments, and policies, in this respect go beyond segments or types of institution; a natural evolution is for a softening of boundaries in the direction of greater diversity but less formal differentiation. Tertiary education policies in OECD countries are moving in the same direction; this observation applies not just to formal differences between types of tertiary education program but also between secondary and tertiary education (in the form of cross-level teaching, and deeper, more varied contexts for learning at the tertiary level).

- Issues of access evolve with growth and large volume participation. Achievements have been realized, but gaps remain: expansion alone will not overcome differential rates of access by socio-economic background, region and age. Policies in this area now focus on new targets, among which urban communities with low rates of participation and wider development needs; to a lesser extent, adults; and, likely, more flexibility in entry requirements to take into consideration a wider range of backgrounds and capacities and a more diverse range of tertiary education options.

- No single policy approach covers the array of difficulties in reforming programs and teaching so as to improve learning and success in studies Policy concerns in this area arise, in part, as a consequence of growth, large volume

participation and diversity; in this sense, policies might be characterized as "second-generation" initiatives launched in the wake of expansion and in the light of new pressures of large volume participation. Policies aimed at revising contents within new and existing qualifications and adapting and supporting the learning experiences of students are recent, and continue to evolve. Experience thus far provides little indication of broad and uniformly realized progress in terms of quality in teaching, relevance and learning—in spite of the efforts made. Policy attention is being directed at finding new ways to reinforce and support the widespread implementation of reforms, drawing on policies and initiatives in quality assurance, staffing and staff development, co-operative arrangements among institutions and programs, student academic support and incentive funding and arrangements.

- Owing to the scope and complexity of the tertiary education effort, policies now reflect elements of partnership: support for and among teachers; co-operation among institutions, with local authorities and industry; among policy portfolios, including labor, social affairs, finance, commerce, foreign affairs and economy; and with students (and their families), in sharing the costs of tertiary education and assuming greater responsibilities in the teaching and learning process. These elements will likely be strengthened, as one means to respond to the pressures of large volume participation, diversity in learning needs and interests and increased competition for resources, public and private.

Routes of access into tertiary education in selected OECD countries (percentage distributions, various years)

Australia (1991, cross-section)	
Commencing Bachelor's (pass)	100
Complete final year of secondary education	55
Some tertiary education	26
Mature age/employment experience entry	6
Other assessment/admission methods	13
Denmark (1993, modeled cohort analysis)	
All participants	100
General upper secondary	75
Vocational upper secondary	15
Other	10
France (1995-96, cross-section)	
First-year entrants	100
New baccalauréat – general	62
New baccalauréat – technological	23
New baccalauréat – vocational	2
Other*	13
Japan (1995, cross-section)	
First-year entrants of high-school graduates	100
General secondary	85
Vocational secondary	15
United Kingdom (provisional 1994/95, cross-section)	
First-degree and diploma students	100
A-levels	65
Vocational qualifications (NVQ, GNVQ)	8
Other (access, conversion courses; Professional qualifications)	27

* Category "other" includes students with a baccalauréat examination who changed programs as well as students with some tertiary experience.

Sources: Department of Employment, Education and Training, National Report on Australia's Higher Education Sector, 1993; Ministry of Education (Denmark), Thematic Review of Tertiary Education, January 1996; Ministère de l'Éducation nationale, de l'Enseignement supérieur et de la Recherche (France), Projections à un et deux ans des principales filières de l'enseignement supérieur, Note d'Information, 97.21, April, 1997; K. Yoshimoto, "VOTEC and School-to-Work Transition in Japan", National Institute of Multimedia Education, November, 1995; Department for Education and Employment (United Kingdom), Thematic Review of Tertiary Education Policies, 1996. See OECD, 1997, Education Policy Analysis 1997, OECD, Paris.

Initial destinations in tertiary education by entry qualifications in selected OECD countries
(per cent of students)

France (1995, cross section)	
Entering tertiary education	
Baccalauréat – General	100
University	72
Preparatory classes for grandes écoles (CPGE)	13
University institutes of technology (IUT)	8
Advanced technician sections of lycées (STS)	7
Baccalauréat – Technological	100
University	30
Preparatory classes for grandes écoles (CPGE)	1
University institutes of technology (IUT)	13
Advanced technician sections of lycées (STS)	56
Germany (1992, cross-section)	
Entering tertiary education (FTFR)	
Higher education entrance qualifications	100
University	79
Fachhochschule	21
Fachhochschule entrance qualifications	100
University	8
Fachhochschule	92
Entering tertiary education (new Länder, 1993)	
Higher education entrance qualifications	100
University	75
Fachhochschule	25
Fachhochschule entrance qualifications	100
University	1
Fachhochschule	99
Japan (1995, cross-section)	
Entering tertiary education	
General high-school graduate	100
University	45
Junior college or special training school	55
Vocational high-school graduate	100
University	21
Junior college or special training school	79

Source: OECD 1997. Education Policy Analysis 1997. OECD, Paris.

Age distribution of first-time university entrants, 1995

	Age at:		
	20th percentile[1]	50th percentile[1]	80th percentile[1]
North America			
Canada	18.9	20.0	26.5
México	m	m	m
United States	18.3	19.0	24.4
Pacific Area			
Australia	m	m	m
Japan	m	m	m
Korea, Rep. Of	m	m	m
New Zealand	18.4	19.4	28.0
European Union			
Austria	19.1	20.3	23.5
Belgium	m	m	m
Denmark	21.1	23.1	28.3
Finland	m	m	m
France	18.3	18.9	20.0
Germany	20.1	21.7	25.1
Greece	18.5	19.4	20.5
Ireland	18.0	18.6	19.4
Italy	m	m	m
Luxembourg	m	m	m
Netherlands	18.8	20.4	23.3
Portugal	m	m	m
Spain	m	m	m
Sweden	20.1	22.1	28.8
United Kingdom	18.5	19.8	27.5
Other OECD countries			
Czech Republic	m	m	m
Hungary	m	m	m
Iceland	19.8	21.0	23.3
Norway	20.2	22.7	>29
Poland	m	m	m
Switzerland	20.1	21.2	23.2
Turkey	18.4	19.9	23.1
Country mean	**19.2**	**20.5**	**24.3**

[1] *20/50/80 percent of new entrants are below this age*

Source: OECD. 1997. Education at a Glance: OECD Indicators 1997. OECD, Paris.

Rates of survival and drop out in university-based education

	Year of reference	Year of entrance	Number of years required to complete a typical program	Method	Source	Survival rate	Drop-out rate
Australia	1996	1994	3	Cross-section cohort	OECD database	65	35
Austria	1996	1989	7	Cross-section cohort	National calculation	53	47
Belgium (Flemish)	1996	~	~	Cross-section cohort	OECD database	63	37
Czech Republic	1995	1992	4	Cross-section cohort	OECD database	79	21
Denmark	1995	~	~	Synthetic cohort	National calculation	67	33
Finland	1996	1985	5	True cohort	National calculation	75	25
France	1995	1991	5	Cross-section cohort	OECD database	55	45
Germany	1995	1990	6	Cross-section cohort	OECD database	72	28
Hungary	1996	~	~	Synthetic cohort	National calculation	81	9
Ireland	1995	1992	4	Cross-section cohort	OECD database	77	23
Italy	1996	1991	6	Cross-section cohort	OECD database	35	66
Japan	1995	1992	4	Cross-section cohort	OECD database	90	11
Mexico	1996	1992	5	Cross-section cohort	National calculation	68	32
Netherlands	~	~	~	True cohort	National calculation	70	30
New Zealand	1995	1992	4	Cross-section cohort	OECD database	76	24
Portugal	1993	1991	3	Cross-section cohort	OECD database	49	51
Switzerland	1996	1991	6	Cross-section cohort	OECD database	74	30
Turkey	1995	1992	4	Cross-section cohort	OECD database	55	45
United Kingdom	1996	~	~	Weighted cross-section	National calculation	81	19
United States	1994	1990	4	True cohort	National calculation	63	37

[1] *Number of years required to complete a typical program*

Source: OECD. 1998. Education at a Glance: OECD Indicators 1998. OECD, Paris.

Non-completion rates in tertiary education in selected OECD countries[1] (various years, percentages)

	Fail in first year Program	Fail to complete program	Fail to complete any program
Belgium (Flemish Community), 1994			
University	47	34	
Non-university (one-cycle)	50	39	
Belgium (French Community), 1992-94			
University	56-62	57	
Non-university	60	38	
Denmark, 1995			
Tertiary		40	23
France, 1993[2]			
Total tertiary, excl. Sections de Techniciens Supérieurs		27	
University Institutes of Technology		20	
Italy, late 1980s			
Tertiary			64
Germany, 1993-94			
Tertiary			29-31
United Kingdom, 1995			
Tertiary			6–13

1. Figures have been drawn from several sources, and are therefore subject to differences in coverage and methodology. For definitions and methodology, readers are referred to the sources mentioned. Further work to improve the comparative information base is needed.

2. The figures refer to those who changed programs or dropped out after the first year; first-cycle only.

Sources: Belgium (French Community), Germany, Italy, United Kingdom: Moortgat, Jean-Louis. 1996. "A Study of Dropout in European Higher Education". Council of Europe; Belgium (Flemish Community): Verhoeven, J.C., and Beuselinck, I.. 1996. "Higher Education in Flanders (Belgium): A Report for the OECD", Ministry of the Flemish Community; Denmark: Ministry of Education. 1997. "Communication to the Secretariat"; France: Ministère de l'Éducation nationale, de l'Enseignement supérieur et de la Recherche, "Les entrants et les accédants : principales caractéristiques –Poursuites dans la filière et réorientations après 7 ans des entrants de 1993" (tabled data supplied for OECD "Thematic Review of the First Years of Tertiary Education") See OECD. 1997. Education Policy Analysis 1997. OECD, Paris.

Ratio of students to teaching staff in tertiary education, 1996
(calculations based on full-time equivalents)

	Non-university tertiary	University-level	All tertiary education
Australia	m	15.4	m
Austria	m	14.5	m
Canada	12.8	16.4	14.6
Czech Republic	9.0	11.7	11.2
France	x	17.2	17.1
Germany	12.3	12.5	12.5
Greece	23.0	23.9	23.6
Hungary	a	9.9	9.9
Ireland	12.2	21.6	16.7
Italy	7.6	29.0	25.7
Japan	10.8	13.5	12.4
Mexico	x	9.4	9.4
Netherlands	a	18.7	18.7
New Zealand	11.6	16.1	14.9
Spain	12.3	17.6	17.4
Switzerland*	m	21.2	m
United Kingdom	x	x	16.7
United States	19.4	14.1	15.4
Country Mean	**13.1**	**16.7**	**15.7**
Brazil	m	m	**11.8**

**Public institutions only.*
Source: OECD. 1998. Education at a Glance: OECD Indicators 1998. OECD, Paris.

Change in Public and Private Expenditure on Tertiary Education, 1990-1995

	Tertiary Education			
	Direct public expenditure for educational institutions	Direct public expenditure for public subsidies to the private sector educational institutions	Direct private expenditure for educational institutions	Total direct expenditure from both public and private sector for educational institutions
Australia	126	132	210	139
Austria	105	128	m	m
Belgium (Flemish Community)	112	101	m	m
Canada	102	118	157	109
Denmark	109	109	a	109
Finland	123	134	x	123
France	130	133	123	129
Hungary	85	88	245	90
Iceland	109	x	x	109
Ireland	133	140	166	142
Italy	72	76	m	m
Japan	123	123	116	119
México	125	128	m	m
Netherlands	99	95	124	101
New Zealand	104	122	m	m
Norway	146	138	m	m
Spain	130	128	135	131
Switzerland	100	101	m	m
Turkey	91	93	m	m
United Kingdom	111	144	791	132

Source: OECD. 1998. Education at a Glance: OECD Indicators 1998. OECD, Paris.

Annex 3:
Institutional Differentiation and the Accomodation of Enrollment Expansion in Brazil
by Bruce Johnstone

Institutional Differentiation
Universities and other institutions of higher education, in Brazil and elsewhere, differ in several important ways. From the perspective of public policy attempting to accommodate enrollment pressures, the most important aspect is differentiation in institutional mission and the several institutional variables that follow from, or are a function of, institutional mission. By "mission" is meant the larger purpose of the institutional, which in turn drives the programs, the kinds of students attracted, the kinds of faculty appointed and the expectations upon them, and the way the institution is assessed (or would be assessed).

Differentiation of Mission: An institution's mission can be aspirational, purported or actual. That is, what the institution is trying to be; what the faculty, students, and leaders wish it to be thought of; and what it most nearly is to the unbiased observer. The mission of an institution of higher education may be best thought of on a continuum, ranging from a primary orientation towards scholarship and advanced training associated with the classical research university to an orientation towards accessibility, vocational training, and the short-cycle programs associated with what are sometimes referred to as *non-university* institutions. The term *binary line* is used to describe national systems where all institutions of higher education are formally classified as either *university* or *non-university*—the latter designation including, for example, the German Fachhochschulen, the French instituts universitaires de technologie (IUTs), the Dutch HBO, most of Japanese private institutions, and those Brazilian public and private institutions without official *university* designation.

However, this nomenclature is becoming out of date—and almost dysfunctional--for several reasons. First, as stated above, institutions are more accurately portrayed along a continuum—or even better, along a series of continua, describing various institutional characteristics or dimensions. Most institutions in most countries lie somewhere between the extremes of the classical, research-oriented, Humboldtian university and the exclusively short-cycle, teaching- and vocationally-oriented college or institute. In the UK, for example, the former polytechnics, once officially *non-university*, are now classified as *universities*, but are required to compete for and earn the resources that may actually lead them to the scholarly distinction associated with those institutions that have long born that designation. In the US, the community colleges are clearly *non-university*, except that most of the coursework is transferable to a university first degree (the baccalaureate). Many able students begin at these colleges for reasons of cost and convenience, transferring to universities after completing the two-year degree. The US public comprehensive institutions (called either *colleges* or *universities*) as well as most of the baccalaureate (mainly private) colleges also resemble the European non-universities in the absence of advanced degrees and the largely teaching orientation of the

faculty. However, some of the private baccalaureate colleges enroll decidedly *elite* student bodies, most of whom go on to obtain advanced degrees in universities, as well as faculty who publish extensively. Similarly, many of the comprehensive colleges give Master's degrees, some even grant doctorates (largely professional doctorates in education), and most of the faculty conduct research and publish. To further complicate the distinction between *university* and *non-university* in the US, most universities, both public and private, give substantial emphasis to teaching (even at *remedial* levels), community service, applied scholarship, and even to short-cycle training.[1]

Mission is also a proxy for a number of important related variables on which institutions of higher education typically vary, most frequently, as for *mission* itself along continua. These dimensions include:

- Dominant knowledge orientation.
- Expected students' required academic preparedness and interest.
- Expected faculty's required academic and scholarly standards.
- Expected and rewarded faculty orientation.
- Degree of prestige accorded to the institution, faculty, and graduates.
- Dominant degree programs.
- Duration of studies and full- or part-time commitment of the students,
- Dominant form of internal governance.
- Typical per-student cost of instruction.

These variables and their associated continua are summarized in Figure 1. A number of important related dimensions of institutional variation track closely with the mission and with each other. For example, *prestige* is associated with scholarly reputation, which is gained through *research and the training of advanced students* who are engaged in *longer-term study*, (usually) in more *theoretical disciplines*. A research orientation, although relevant mainly to advanced doctoral training in the arts and science disciplines, is associated with high entry standards for undergraduate or first degree students who will likely have little association with the prestigious professors, but will reap the rewards of a high-status degree largely because of these high entry standards and the all-important signal to the outside world of their required intelligence, academic preparedness, ambition, and probable social background. All of presumed value to employers, future friends, and mates.

Programs of study or degrees vary by discipline or occupational field, by level of study (first, second, or advanced degree), and by the dominant learning goals (whether heavily theoretical or more applied). These track closely with the other dimensions of institutional variation associated with the *university* vs. *non-university* distinction. For example, programs will vary by prestige, cost of delivery, and attractiveness to students. An institution seeking to raise its prestige and to be perceived as more "scholarly" is

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1 Burton Clark describes the blurring of the traditional "teaching-research" distinction, with institutions formerly focused on one or the other end "drifting" toward "some of each" in the middle. See Clark. 1995. *Places of Inquiry*. University of California Press, Berkeley.

likely to emphasize the traditional arts and science disciplines and the classical professions of law and medicine. An institution not likely ever to attain genuine university status might be more cost-conscious and seek fields of study that can be taught (and presumably learned) in large lecture formats, with little or no specialized equipment and with inexpensive adjunct professors. Finally, an institution that must work to maintain enrollment—generally meaning one that is minimally selective and that attracts students on the basis of location, service, and program rather than prestige—will present the programs with greatest student demand (although generally also mindful of costs), regardless of future employment prospects or the social need for more practitioners.

University and Non-University:
The Continua of Institutional Mission Variation

	←---------- *Continua* ----------→		
Dimensions of Mission Variation	**Research University Humboldtian Tradition**	↔	**Non-University: Practical & Short-Cycle Orientation**
Dominant Knowledge Orientation	Theoretical, scholarly, broadly generalizable	↔	Practical, vocational, Immediately useful
Students' Required Academic Standards	High: rigorous academic Secondary School preparation	↔	Medium to low: can be less Than academic Secondary School
Faculty's Required Academic Standards	Terminal degree in field: doctorate or equivalent	↔	Master's or lesser Degree
Expected & Rewarded Faculty Behavior	Rewards & time oriented to research and scholarship	↔	Rewards & time oriented to Teaching
Image of Prestige & Status	High	↔	Medium to low (relative to University)
Dominant Degree Programs or Courses	Arts and sciences & advanced professional (law, medicine)	↔	Business, human services, Entry technical (computer programs)
Duration of Programs	Long (typically 4- to 7-year first degrees)	↔	Short: may feature certificates and diplomas of less than 1 Year
Time Commitment (full or part-time)	Typically full-time study	↔	Typically part-time study
Dominant Form of Governance	Curriculum & rector selection dominated by faculty	↔	More bureaucratic-Management domination
Typical Instructional Unit cost	High	↔	Medium to low

Source: Johnstone, 1999

Tracking closely with differences in program, prestige, and primary orientation of the faculty is the dimension of *student orientation*, or *institutional market niche*. Institutions that choose, or for some reason are required, to locate on the *non-university* end of the institutional mission continuum, will generally appeal more to less academically and/or socially ambitious students. They might be less academically able, perhaps as a result of early schooling or the academically non-supportive influence of peers or family. But they also might be simply less drawn to theoretical subjects, or more drawn to vocations that require applied training in which university training is of little (or negative) value, or—and this is closely tied to public policy—their institutional preferences may be a function of both academic preparedness and family financial resources. Not being academically strong enough to be admitted to the prestigious free universities, and not being financially able to afford the best alternatives. The barrier may be tuition for private institutions, or high living costs (from the need to live away from home) for the alternative public institution. So, they[2] are relegated to the institution closest to home—which may just happen to be a college or institute with less prestige and less value in the job market.

Academic Drift: Gravitation toward the University End of the Mission Continuum

Institutions of higher education are neither neutral nor stable with regard to where on this continuum their mission is positioned. For reasons that are partly natural (a human inclination toward prestige), partly historical/cultural (the historic origins of the classical universities), and in part a function of policy (governmental rewards, whether intended or not, that favor the classical research model relative to all others), there is an almost ineluctable gravitation toward the scholarly-research end of the mission continuum. Institutions want to be thought of as *universities*, frequently as more scholarly and well regarded than they really are. And if they are not presently particularly scholarly, it is thought to be proper to aspire to become more so by acquiring permission to offer more advanced and prestigious programs, attracting a more academically prepared student body, inducing more scholarly behavior from the faculty, or by attempting to change the institution's designation politically by governmental edict.

The Brazilian university, like the French university on which it was largely modeled, has traditionally been more of a teaching institution than a center of scholarship.[3] Although reforms in the 1960s attempted to raise scholarly qualifications of the faculty and scholarly output of the universities[4], most university faculty are still without terminal degrees, and the research productivity of most universities (except for a few that do international quality research, mainly in São Paulo and Rio) is low. To describe Brazilian higher education the 1980's, Verhine wrote in 1992: "the generally low qualifications of teaching personnel, the lack of effective faculty evaluation, the virtual impossibility of employee firing, the absence of incentives for research and

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2 There may as well be a gender effect, as parents may be less willing to spend their money to support a daughter away from home than to support a son.

3 Verhine, Robert E. 1992. "Brazil". In: Altbach, Philip G., Ed. *International Higher Education: An Encyclopedia Vol. II*. Garland Publishing, New York. p. 887.

4 It should be noted that these reform efforts, while partly successful, came about at the time of the military dictatorship that also took away many of the academic freedoms so essential to the classical Humboldtian research university tradition.

publishing, and the need for many in the [professorate] to hold down additional employment to meet income expectations have led to a major internal crisis."[5]

Any attempt to turn institutions that *formally* consider themselves *universities* into anything less (which is how the imposition of a *non-university* designation would be seen) would be made with great resistance and would probably fail. However, as the American experience has shown for years, and the British experience has shown since the abolition of the binary line that once separated their universities from the polytechnics, a very substantial and useful differentiation can co-exist *within* the formal *university* designation. Care is taken to resist academic drift toward the faculty roles and rewards associated only with research universities. With most Brazilian universities already operating primarily as teaching institutions, little seems to be gained from "taking on" the designation of *university*. Instead, public policy ought to concentrate on freeing public institutions from the rigidity of the federally imposed teaching expectations and other "terms and conditions" for both faculty and staff. Likewise, it should fund program growth principally (but not exclusively) on the practical, shorter-cycle end of the mission continuum.

Differentiation between or within Institutions

The last point suggests another variation on the theme of differentiation. Institutions of higher education, especially those of substantial size and those that are predominantly research-oriented, can differentiate within. That is, the non-university function can be added to or incorporated within an existing research university, without having to create a separate institution. An example of institutions that incorporate both the *university* and the *non-university* functions are those French universities that incorporate all of the traditional university mission[6] along with the non-university Instituts Universitaires de Technologie (IUT). However, although these two institutions share some space and formal governing authority, they are less successful in sharing faculty and courses. The IUTs have acquired some status not generally associated with non-university institutions, by virtue of having entry standards beyond the mere possession of secondary academic leaving certificate or Baccalaureate. In a kind of role reversal, the French university is the institution with more nearly open admissions (being forced to accept all students with a *Bac*), whereas some of the IUTs have been able to carry out a kind of selectivity process. In fact, the French have adopted quite another model to contend with students who are less motivated for the traditional university first degree. This is a two-year degree (DEUG) that allows such students exit gracefully--although few seem to be taking advantage of this opportunity. Another attempt to combine both ends of the mission continuum in a single institution is the German Gesamthochschule, which was devised to combine the classical German university with some of the programs and orientations of the newer Fachhochschulen. While the idea seems to be working where it has been adopted, the model is not spreading to the other states.

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[5] Verhine, p. 892.

[6] Most of the national research function is assigned to the independent National Scientific Research Centers, or CNRS, not to the French universities.

The problem with combining broad mission variation in a single institution is the difficulty of combining fruitful partnership elements with such disparate levels of prestige and assumed rewards--to faculty and student alike. Thus, the more practical, teaching-oriented, non-university elements may remain on the periphery, gaining little from the consolidation and having faculty chaffing unhappily under larger teaching loads. On the other hand, institutions may try to emulate the *university* faculty and programs, losing every reason for creating the practical, teaching-oriented programs. However, in the large number of Brazilian universities that are already in the middle of the mission continuum, it might be possible to expand the more practical, shorter-cycle programs by tying faculty rewards to such programs or to non-university proxy indicators, such as shorter time to graduation, teaching performance, and enrollment of students carrying need-based aid.

Differentiation of Institutions by Relationship to Government

Institutions of higher education may also be differentiated according to several dimensions of reliance on, or relationship to, government. These several continua are associated with *publicness* or *privateness*" They are only loosely related to mission. Three principal dimensions of variation are the following:

Ownership: Ranging from the clearly public, to the private non-profit and to the private for-profit or proprietary (or in the case of Brazil, the *entrepreneurial* institution that is nominally non-profit but that exists for the clear purpose of profit through ways other than payment of dividends).

Control by Government: Ranging from the high degree of control associated with a governmental agency to the relative freedom to operate associated with a private enterprise. The *high control*, or *government agency*, end of the continuum might include direct control procedures over all institutional expenditures and contracts, and perhaps even the authority of the government head to directly appoint and remove top-level administrators, in a ministry or agency. In the middle of the continuum might be control by a publicly-appointed board or buffer agency, like a university grants commission or an appointed or elected governing board, subject ultimately to control by direct election or by the appointing authority of an elected official—but not quickly or (in theory) too overtly. At the *private* end would be an entity placed quite away from the authority of the government—even though the institution might be operating under a public charter dependent on public revenues, and in facilities owned by the state.

Level or Branch of Government Control: The principal governmental control can be federal, state (or provincial), or municipal—or possibly shared among these levels according to the prevailing national tenants of federalism. In the U.S. and Canada, for example, the federal government has no authority over the operation of any institution of higher education (except for the very few that are federally owned, such as the military service academies). The federal government has the regulatory authority it has over any organization or entity, but none by virtue of the entity being an institution of higher education. Brazilian federalism imparts considerably less sovereignty to the constituent states than the U.S. Constitution to the American states. The Brazilian federal

government has "its own" institutions (35 of which are designated as *universities*) and it allows states and municipalities, with federal permission, to form, fund, and control more than 150 additional public institutions of higher education.

Multi-level jurisdictions present some problems, at least in theory. When there are federal and state or provincial institutions of higher education, and when all sovereignty lies clearly at the federal or central level, it is tempting for the federal government to choose the smaller, high-prestige end of the institutional mission continuum, reinforcing or even exacerbating the disparities in prestige and funding to the relative detriment of those institutions serving the majority of students and arguably even the most important role in the economy. Also, when financial responsibility is shared between two levels of government, each level has an incentive to be *the least and the last*. Because the federal level of government is usually the strongest, it will attempt to push financial responsibility down to the states or regions and, at the same time, retain the ability to "top up" funding where it chooses. Both levels can evade responsibility (especially funding responsibility), claiming that any deficiency is due to the failure of the other level.

Reliance on Governmental Revenue: Institutions in all countries vary considerably in their reliance on governmental or public revenue, as opposed to non-governmental revenue. The principal sources of non-governmental revenue for institutions of higher education are the following:

- Students and parents—through tuition, fees, and full-cost recovery of institutionally-provided room and board;

- Sales of faculty and other institutional services—through sponsored research contracts or the provision of specialized training to individuals, firms, or government agencies; and

- Philanthropists—through individual, business, and foundation donations.

These variations are summarized in Figure 2. Universities and other institutions of higher education can be publicly owned—which would be the most unequivocal determination of *public* status--and yet quite reliant on non-governmental revenue through the charging of high tuition and full cost-recovery of institutionally-provided room and board. They could also be given substantial managerial autonomy, perhaps through a publicly appointed *buffer* governing board. Conversely, institutions of higher education can be unequivocally privately owned, yet subject to heavy governmental regulations—e.g., on the charging of tuition or the compensation of faculty and staff. They may also be highly dependent on governmental revenue either through direct institutional operating grants, or through the device of tuition grants or vouchers that channel public financial assistance through students. In the former example, the university would be nominally public, yet substantially private; and, in the latter, the institution may be legally private, yet virtually indistinguishable from a public university.

Brazil's public universities are heavily governmentally controlled—from the appointment of rectors to the compensation and terms of employment for faculty and staff. Brazil's large private higher education sector, ranging from a few institutions clearly at the *research university* end of the mission continuum to the majority near the *non-university* end, are subject to considerable governmental control. The Federal Council of Education (CFE) controls initial approval to operate as a university or college, the courses of study or programs that can be offered, and the maximum tuition that can be charged.[7] Through the 1960s, lessening in the 1970s, and ending in the early 1980s, most of Brazil's private universities also received substantial public operating subsidies, further reducing the significance of their *privateness*. By the 1990s, however, this operating support had been mainly eliminated, making the private institutions quite tuition dependent—no longer depending on public revenue, but still subject to various public controls including tuition.[8]

Variations in Relationship between Institutions of Higher Education and Government

	←---------- *Continua*----------→				
Dimension of Variation ↓	***High Governmental; High Publicness***	↔	***Mid Governmental; Public and Private***	↔	***Low Governmental; High Privateness***
Ownership	Clear public ownership	↔	Ownership by public authority or "true" non-profit entity	↔	Clear private ownership
Control by Government	High govt. control as in govt. agency or ministry	↔	High autonomy; only ultimate gov. control & post audit	↔	Gov. control limited to regulatory authority
Reliance on Public Revenue	High reliance on governmental revenue	↔	Some reliance: "shared" revenue responsibility	↔	Most or all private revenue from tuition, contracts, & donations

Source : Johnstone, 1999.

[7] World Bank Population and Human Resources Division (October 1993) "Brazil: Higher Education Reform" [for World Bank Use Only].
[8] *Ibid.* p. 27.

Typology of Higher Education Institutions in Brazil

Drawing on this treatment of institutional differentiation, Brazilian institutions of higher education can generally be differentiated along the two principal axes of ownership and institutional type:

1. Ownership
   - public—further differentiated by:
     - federal,
     - state (with the two principal São Paulo universities in a virtual class by themselves), and
     - municipal.
   - private—further differentiated by:
     - religious (mainly Roman Catholic),
     - secular, entrepreneurial (technically non-profit, but existing for purposes of profit), and
     - proprietary (recently legalized, but there are as yet few so classified, as it is easy to make money through the non-profit *entrepreneurial loophole* with non-profit tax advantages).

2. Institutional type or classification
   - universities—further (loosely) differentiated by:
     - universities with doctoral training and substantial faculty scholarship, and
     - teaching universities,
   - non-universities—further differentiated by:
     - Single faculty institutions, and
     - Multiple (federations of) faculties.

Information from the Brazilian Ministry of Education (MEC) in 1997 supplied to the World Bank provided information on sector differentiation by ***type*** (universities, non-university multiple faculty, and non-university single faculty) and ***ownership*** (federal, state, municipal, or private). There were 922 institutions, 57 of which were federal, 74 state, 80 municipal, and 711 private.[9] Total enrollment in the public sector was 735,427 or 39 percent of the total, of which the Federal universities accounted for 20 percent. The state universities, mainly in São Paulo, had 11 percent of the total enrollment. Private enrollment accounted for 1,868,529, or 61 percent of the total, of which about one-half were enrolled in universities.

[9] Arora, Alka, Crawford, Michael, and Holm-Nielsen, Lauritz. 1998. "Higher Education in Brazil: The Evolution of Student Access." A working paper prepared in the summer of 1998. World Bank, Washington, D.C.

Higher Educational Institutions in Brazil, by Type, 1996

Type of Institution	*Number*	*Enrollment*	*Faculty*
Universities	**136**	**1,209,400**	**102,685**
Federal	39	373,880	40,492
State	27	204,819	22,911
Municipal	6	47,432	3,135
Private	64	583,269	36,147
Non-University-Multiple Faculty	**143**	**254,029**	**15,725**
Public	11	8,681	821
Private	132	236,348	14,904
Non-University Single Faculty	**643**	**414,100**	**29,910**
Public	128	100,615	7,307
Private	515	313,485	22,603
Total	922	1,868,529	148,320

Source: MEC/INEP/SEEC 1997.

Enrollment Expansion

Brazil is facing considerable potential enrollment expansion at the end of the 1990s. Enrollments nearly doubled between 1980 and 1996, from 652,00 to 1,209,000.[10] Enrollment growth has been somewhat flat in the 1990s, but rapid expansion of secondary school enrollments and the relatively low percentage currently going on to higher education, particularly in the North, suggest considerable enrollment growth potential. The overriding policy question of this paper is the degree to which this potential expansion can or should be met with explicit policy attention to *institutional differentiation*. Specifically, what kinds of institutions should be built, expanded, or allowed to be privately developed to accommodate the needed and anticipated expansion?

The agenda of enrollment expansion is part of, and confounded by, four quite different, although related, change agendas identified below as *reform, modernization, growth,* and *democratization.*

1. The Reform Agenda. Quite apart from growth or changing external factors (such as increasing population or changing economy) to which an institution might or might not want to accommodate, and apart from considerations of the future, in general there will be an underlying higher educational reform agenda in any country. This agenda asks what is currently perceived (usually by persons of power) to be wrong with the universities and other institutions of higher education, and how should they change. Most countries have a conventional and long-standing reform agenda that is relevant to, but not directly

[10] Arora, Crawford, and Holm-Nielsen, p. 3.

concerned with, accommodating future enrollment pressures. Within this conventional (and relatively timeless) reform agenda, for example, long desired changes are usually found, such as more attention to the craft of teaching and to first degree or undergraduate students, better management and more appropriate allocation of resources, and addressing the occasional (or perhaps more-than-occasional) *unproductive* faculty member. A successful reform agenda can help accommodate enrollment growth to the degree to which it uses higher educational resources more effectively or improves the quality of teaching and learning. The conventional reform agenda usually incorporates greater differentiation aspects —partly in opposition to the forces of *academic drift* and *institutional homogenization* mentioned above—which are viewed as part of the problems giving rise to the reform agenda in the first place. But the existing reform agenda has a life of its own and is not primarily a response to a perceived need to expand enrollment.

2. The Modernization Agenda. The modernization agenda applies to all institutions, and is similar in all countries, especially as it pertains to research universities and to science, both of which are very universalistic and globally interconnected. The base of knowledge and the methods for its expansion change, especially in science, but also in other fields, faculty, and curricula, and facilities must accommodate or modernize. Thus, Brazilian higher education would be facing needed changes and new resource demands even if past reforms had all been successfully adopted, and even if there were no pressures for expansion of enrollments or new institutions. Some of these modernization processes would likely call for further institutional differentiation, although it might be accommodated more by differentiation within, rather than differentiation between, institutions.

3. The Growth Agenda. As populations grow, so should the number of those who need, or could be expected to demand, some sort of higher education—quite apart from any expansion in the percentage of the school-age cohort completing academic secondary school, or the percentage of those who wish to enter a post secondary institution. Brazil has a large, fast-growing, young population. The World Bank estimated in 1993 that the prevailing annual secondary growth rate was 3.4 percent.[11] Thus, if the current range and capacities of institutional types described above are assumed to be "right" for the present, each kind of institution would have to increase its capacity—or built new ones--at about the same percentage growth rate as that of the 18- to 25-year-old-age cohort. What is significant about the pure growth agenda is that it presumes no differential growth rates or redistribution of enrollments among the different parts of Brazil's higher education system. Research universities, non-universities, and institutions *in between* could be expected to feel the same marginal growth pressures and to expand or to be expanded at about the same rate.

4. The Democratization Agenda. The democratization agenda assumes a need to expand the percentage of the age cohort attending higher education—as well as accommodating older persons who did not have the ability or the inclination to go on to

[11] World Bank. 1993. "Brazil: Higher Education Reform," p. 51.

some form of higher education at the time they left compulsory schooling. The significance of higher educational democratization is that is magnifies the effect of sheer population growth. If a country is growing in population ***and*** is currently educating a relatively small proportion of the traditional age cohort (and thus has a large, latent non-traditional student demand) that needs to be sharply expanded, the potential total enrollment expansion can be very large indeed.[12] The World Bank estimated in 1993 that reforms in secondary schooling could raise the then prevailing secondary school enrollment growth rate from 3,4 percent to 6,6 percent.[13] By this reasoning, the Brazil's potential higher education enrollment growth rate must be considerable. Some *democratization-accelerated* higher education growth is also supported by comparative higher education participation rates. Total higher educational enrollment in Brazil is estimated at approximately 11 percent of the 18- to 24-year-old-age cohort—compared to 35 percent in Argentina and nearly 50 percent in France.[14] Not only is this participation rate somewhat low for Brazil's overall level of economic development and modernization, but the country-wide number masks a very great within-country disparity with relatively high participation rates in the South and around São Paulo, but presumably very low rates in the North and Northeast. The *democratization* perspective also suggests that the average student on the margin of this enrollment expansion—by definition, a student who in the past would not have been able or interested (for whatever reason) in higher education—is likely to need or demand a different kind of higher educational experience and thus, perhaps, a different kind of higher educational institution.

Enrollment Expansion and Institutional Differentiation

This analysis suggests that the marginal enrollment expansion is likely to need expanded higher education capacity in all types and sectors but especially in institutions closer to the non-university end of the mission continuum. Public policy should therefore make special efforts to expand capacity there—and to resist the natural *drift* of the more applied and shorter cycle programs in the direction of research university norms. The conventional advice of inter-national higher education agencies, international development banks, and most scholars and consultants in the business of offering advice to national education ministries is exactly that: urging *institutional diversification*—meaning relative expansion toward the *non-university*, shorter cycle, more vocationally-oriented end of the mission continuum. There are two reasons underlying this advice, and it is worth identifying them and examining their underlying assumptions.

The first basis for recommending a relatively greater expansion at the *non-university* end of the mission continuum is that the new or marginal student is thought to be less academically prepared and less academically interested. Admittedly, there is a social class basis to this assumption. Part of the attraction of the classical university is generally assumed to be a fondness for literature and the arts, an inclination (or sufficient

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[12] In a similar manner, one can postulate even further magnification by assuming that the amount of higher education partaken of (i.e., degrees per individual student) will also increase over time, or "on the margin."

[13] World Bank. 1993. "Brazil: Higher Education Reform," p. 51.

[14] National Center for Education Statistics, *Digest of Education Statistics 1997*, Table # 392, "Selected Statistics for Countries with Populations over 10 Million, 1980, 1990, and 1994."

leisure time) for abstraction and *knowledge consumption*. This kind of academic preparation and ambition is associated with upper-middle and upper class families. It is further assumed (well supported by data on higher educational participation by family income and/or social class) that most young people from these income classes who are academically able and inclined are already going to a university. Furthermore, it is also assumed that most job growth will require not necessarily a university first or second degree, but a shorter degree—Bachelor's, or even shorter, and in some kind of applied or technological field (at least, the jobs are assumed not to be in the fields of classical art, science, or law as it was assumed in the past when it was appropriate for entry into the civil service.) It follows from these observations and assumptions that public policy to increase higher educational enrollment capacity should at least "tilt" toward the non-university end of the mission continuum.

The second factor in favor of this tilt is the assumption that costs are less at non-university colleges than at classical or strictly research universities. The basis for this assumption (aside from the fact observed) is that faculty at research universities teach lighter loads, are supported by more equipment (including libraries, laboratories, and computing facilities), and frequently have higher salaries (or are more likely to be full-time) than their counterparts at the polytechnics, colleges, and other non-university institutions. Unit (i.e., per-student) expenditure data bear this out. In addition, because students at the short-degree end of the continuum take fewer classes and move out faster, they cost less per degree. Thus, as higher educational policy is driven by considerations of cost and by the need to stretch public revenues further, the institutions toward the *non-university* end of the mission continuum are all the more attractive.

However, there are caveats to the conclusion that the non-university is necessarily more cost-effective. In the first place, at least some of the greater per-student cost associated with classical universities is a function of three factors having little to do with actual higher educational production functions:

- *Tradition*: University budgets have always been greater, so it is assumed that whatever university faculty *do* is necessarily more costly;

- *Professorial Preference*: Understandably for lighter loads and abundant unscheduled time; and

- *Student Preference*: taking unhurried time toward the degree.

But these factors are not to be confused with an actual production function, demonstrating that it must cost more to educate a university student. Universities that are genuinely (and successfully) research-oriented, especially those that are scientific, biomedical, or technological, are indeed fundamentally more expensive (at least the successful ones). This, however, has little to do with what it actually costs to educate the students especially at the first-degree level. Rather, the faculty must be provided with light teaching loads, competitive compensation, and costly equipment to produce the research. But as already noted, many of the Brazilian institutions that are called

universities are actually in the middle of the *mission continuum* and are essentially teaching institutions.[15] Their admittedly higher per-student costs are arguably a function of light teaching loads very often unmatched by commensurately high scholarly production, excessive staffing, and other manifestations of inefficient management. Similarly, the low per-student costs associated with some of the institutions at the short cycle *non-university* end of the mission continuum are likely a function of shoddy facilities, overworked and/or under compensated faculty (many of whom are part-time or paid by the class or the hour), and paying less or no attention to the student outside the classroom.

To assume that all universities need to be more costly than colleges, polytechnics, or other non-university institutions may be to perpetuate an existing pattern of resource allocation and faculty norms that should be changed. Perhaps some of the faculty teaching at colleges and other *non-universities* would be more effective (particularly from the perspective of student learning), if more members were full-time, better compensated, and had more opportunities for scholarly work. Similarly, there are some universities that are almost certainly not as genuinely costly per-student as their non-university counterparts because of the huge university classes and minimal individualized attention to the student. However, the prevailing cost-accounting conventions, attributing all costs to teaching, will not reveal this. In the case of Brazil, where many of the *demand-absorbing* institutions are nominally *universities*, it would be a policy mistake to be overly influenced in the decision about what kinds of institutions to favor taking the current patterns of per-student cost estimates. However, in spite of these caveats, the conventional advice—to tilt the accommodation of enrollment expansion toward the expansion of capacity in institutions from the middle to the non-university end of the mission continuum--almost certainly holds in the Brazilian case. But the reason is more for the greater curricular appropriateness than for any presumed fundamental cost effectiveness.

Recommendations on Institutional Differentiation for the Accommodation of Enrollment Expansion in Brazil

It is not apparent from the secondary source materials available for this analysis that Brazil needs a dramatic or wrenching restructuring of existing institutions of higher education for the purpose of accommodating enrollment expansion. The universities and other institutions of higher education in Brazil seem to need reform as in virtually any country. But the purpose of accommodating enrollment expansion is not necessarily any more compelling than the goal of enhancing efficiency or quality. And while this analysis has emphasized, for the accommodation of enrollment expansion, what has been called the *non-university end of the mission continuum*, it is arguably as important for Brazil--as large and as economically and culturally significant as it is -- to reform and enhance its research and scholarly capabilities.

With a special sensitivity to the enrollment pressures presented by both growth and democratization and with a special awareness of the importance of institutional

[15] World Bank. 1993. "Brazil: Higher Education Reform".

diversification or differentiation, the following recommendations and observations are offered.

- There are probably enough (if not too many) federal institutions. The federal government of Brazil clearly has an important role in higher and post-secondary education. But that role is almost certainly not primarily the ownership and management of federal institutions. Rather, more effective federal roles in higher and post-secondary education may be the following:

    a. The provision of need-based financial aid portable to institutions of any type in any state. If Brazil is to rely substantially on loans (as opposed to grants or low tuition for all), then the general rules and the financial responsibility should be federal because of the difficulties of collecting loan repayments under the best of circumstances.

    b. Special assistance to the more isolated and impoverished regions, principally in the North and Northeast. This would be accomplished more effectively through additional student assistance, special program grants, and special capital grants instead of additional federally owned and managed institutions.

    c. The determination of general priorities for, and the funding of, most basic research.

    d. Accreditation. From initial permission to open, through permission to offer certain degrees and programs, to periodic quality assessments (with the implied authority to close insufficient programs and institutions).

- It is appropriate for each federal institution to feature scholarship and advanced training, although this scholarship and training does not have to be comprehensive, nor extend to all faculty or all programs, nor preclude "scholarship" of a very applied nature. The most persistent criticism against US universities is the assumption (perhaps only implicit, but widely acknowledged) that all faculty of all universities should be engaged in research (the more theoretical, the better) for their entire careers. It is likely that the same criticism is being made in Brazil. Thus, no federal university in Brazil would have to cease being a *university*. But many should be pressured to become more scholarly, perhaps by the need to compete for the funding that allows faculty to have a reduced teaching load and the resources for research. Furthermore, the kind of advanced training programs to be approved and the research to be funded would be that which is appropriate to social, cultural, and economic needs of the region—and complementary to the research and advanced training provided by the (few) genuinely scholarly private universities as well as by the state universities in São Paulo.

- The above recommendations depend on adequate funding of federal research foundations—in effect, removing federal dollars from the requirement to maintain the higher operating support of a research university, and requiring the universities and the faculty to compete for the dollars and the prestige that come with them. This, in turn, depends on success in the familiar reform agenda calling for greater institutional management authority over the appointment, promotion, compensation, and teaching assignments for faculty.

- The state universities ought to combine a mission of effective teaching with attention to the special research and training needs of the region. The excellent research universities of São Paulo aside, most of these institutions need to be held to appropriate scholarly standards—but not allowed to minimize their teaching responsibilities, nor necessarily be held to the same kind of *research-and-publication* output expected in the world's and Brazilian's top research universities.

- Brazil's reliance on a large private sector especially for the accommodation of enrollments (not unlike other Latin American and many Asian countries) has served the country well, and should be maintained and strengthened. Some familiar recommendations:

    a. Strengthen a portable need-based grant system, supplemented by a generally available,[16] minimally subsidized,[17] national loan program.

    b. Make private universities eligible for the expanded grant programs, mentioned above.

    c. Provide low interest, guaranteed loans for capital improvements and expansion.

    d. Remove government restrictions on private sector tuition. Adopt a policy of modest public sector tuition (say 15-20 percent of per-student costs).

- Accommodate overtly proprietary institutions. Tighten up on the loopholes and other violations of the non-profit laws (the *entrepreneurial institutions*).

- Strengthen the accreditation system. Brazil will probably rely on ministerial accreditation, but can still utilize largely volunteer staff and faculty from peer institutions to provide better and less expensive staff for the accreditation site visits.

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[16] The "general availability" is to prevent the loans from being restricted to those whose parents are affluent enough to be accepted as co-signers.

[17] Substantial subsidization demands that the loans be rationed by "need," which is exceedingly difficult to determine, especially for students who require loans rather than grants. A "minimally subsidized" loan does not require tests of "need" or "credit worthiness."

These measures will preserve and improve the efficiency of what is already a substantially differentiated system of institutional missions, programs, and forms of governance. The sharpened, strengthened differentiation will better accommodate the inevitable expansion of higher education enrollment in Brazil.

Annex 4:
Trends in Governance and Management of Higher Education
by Quentin Thompson

Trends in Governance and Management of Higher Education

There is a similarity in the broad directions of the trends in governance between many of the OECD countries, although their manifestations are often different. This paper draws primarily on the experience of the English speaking OECD countries, but starting from a different base many of the other OECD countries show similar trends. The issues highlighted in this paper are those that would appear to be particularly germane to the current position in Brazil.

Changes in the governance of higher education are often the result of, and are always influenced by, changes external to higher education itself. Therefore this paper first outlines some of the environmental trends affecting the governance of higher education (Part A) and then discusses the related changes to governance within higher education institutions themselves (Part B).

External Changes Affecting the Governance of Higher Education

In part A of this paper, we first consider the main external changes affecting higher education and then outline the main trends in government/university relations; we conclude by drawing four high level implications for the governance and management of higher education institutions. In part B, we then discuss each of these four implications in more detail.

External Changes

The main external changes which have had, and continue to have, a significant impact on the governance of higher education include:

- changes in the nature of industry and commerce and hence in the labor markets for graduates;
- changes in social demands from current and potential students;
- the expansion and fragmentation of knowledge;
- technological developments relevant to the delivery of education;
- changes in the nature of research.

Each is discussed briefly below.

Changes in the Labor Market. In one sense, employers and the labor market are major consumers of the 'products' of higher education. There are two significant changes in many countries which are affecting the labor market for high level skills: first, the growth of knowledge based industries with their ever increasing requirements for

'knowledge' workers; second, the increasing speed of change within the economy which means that few people will spend their whole working life in one job, or even in one field of activity. The subject disciplines that are relevant today become out of date tomorrow. The new graduate needs to be prepared for a life of learning; to have learnt how to learn and how to adapt is at least as important as to have learnt any specific subject discipline. Flexibility and adaptability are key skills, which the labor market increasingly demands of higher education graduates.

The traditional professions too are no longer static and require their practitioners to update their knowledge and skills at regular intervals; new graduates in these professions now expect to experience a lifetime of learning. New 'professions' constantly emerge, some with a fairly short life span, many of which are based on several disciplines rather than on any one specific discipline. The changing (and sometimes ephemeral) nature of these new professions makes it inappropriate to tie them to specific sets of qualifications. The rigidities of links between jobs and their qualifications are breaking down anyway, even for some of the older professions.

Social Demands. The other main consumers of higher education are actual and potential students. Changes in student demand have been both quantitative and qualitative. Over varying periods of time, virtually all OECD countries have moved towards a system of mass higher education, typically now catering for 30-40 percent of the school leaving age cohort. In part, this is the result of the pressure for expansion from the students themselves – either directly or indirectly. Such growth has not always been handled well.

Student demand has been changing qualitatively too, with a growing realization by students that they are important 'customers' of higher education. Many institutions have thus modified their hitherto 'supply-led' approach and sought to develop courses and programs designed explicitly to attract students. This tendency has been reinforced in countries in which public funding mechanisms have been adjusted to reflect student choices (to varying degrees) – see below. The growth of 'consumerism' by students, coupled with the changing labor market requirements mentioned above, has also led to an increase in the provision of part-time, distance, and open learning courses.

Growth and Fragmentation of Knowledge. The more or less exponential growth of knowledge has meant that higher education providers have increasingly needed to make explicit decisions about the content of what they can and cannot deliver. It has also resulted in academic staff interests becoming narrower and more specialized. These trends have a greater impact on the pedagogical aspects of provision than they do on those of governance, but they reinforce the need for universities to make strategic choices about the balance of their activities – both for teaching and for research.

Technological Changes. Technological changes have potentially far-reaching implications for the provision of higher education – although the impact so far has been relatively limited compared with the perceived potential. There are three main types of development: first, those developments that enable education to be delivered, at least in

part, at a distance – which also facilitates the globalization of provision across geographical boundaries; second, those that enable the style of provision to be different, both the nature of interactions between academic staff and students and the extent of student access to sources and types of information; third, the developments that enable provision to be more flexible and adaptable to the needs of individual students.

The Nature of Research. The change in the nature of research which has the greatest impact on issues of governance is the growth of 'issue based' research – as a complement to the more traditional 'subject based' research. Such research is increasingly cross-disciplinary requiring work across subject (and departmental) boundaries within an institution (and also increasingly across institutions too). As the research content follows the development of the issues, so the composition of research groups changes, grows, declines and re-groups.

Trends in Government – University Relations

In virtually all OECD countries, government is the predominant provider of funds for higher education – and in most countries it is also the predominant provider of the education itself. Thus changes in government views of, and approaches to, higher education can have a significant impact on the sector. Most governments have encouraged their higher education institutions to react positively to the external trends noted in the previous section – especially to the first two (labor market changes and student demand): for example, through the encouragement of 'relevance' and of a more skills- and work-oriented approach and through the expansion, sometimes dramatic, of the higher education system itself.

More directly, there have been three main, and inter-related, trends in the ways in which governments and higher education inter-react, viz:

- a movement toward government supervision and away from government control;
- changes in the way in which public funds are allocated to individual institutions;
- increased emphasis on the accountability for the use of those funds.

Each is discussed briefly below.

From Control to Supervision. This trend underlies both the other two; in its own right, perhaps the clearest manifestation is the increasing expectation (in some cases, the requirement) for universities to produce '**strategic plans**' – a concept adapted from the business sector, but now fairly widely accepted as representing good practice within the education sector too. Such plans can provide government with the confidence that the universities are adequately responding to external trends and that they are making wise use of the public funds allocated to them. In countries in which the format of the plans is

set by government (or by government agent), the resulting plans can be viewed as an implicit contract between the institution and the government.

The move from government control to supervision is also reflected in the increasing attention being paid to **outputs rather than inputs** - a particularly important change for funding and accountability (see next sub-section). Growing government interest in academic standards and quality is another reflection of this change: the development of, and increasing government interest in, quality assurance mechanisms demonstrates a concern that what is being bought with public funds is sufficiently rigorously quality assured – in other words, that public funds are well spent in terms of the quality of provision which they secure.

Allocation of Public Funds. The way in which government allocates public funds to institutions clearly has a major impact on institutional governance. There have been two complementary and significant changes. First, there has been an increasing tendency to move from providing funds on the basis of inputs to funding on the basis of outputs; second, there has been a change away from line item funding towards the provision of block grants with the freedom for institutions to move funds between headings.

The first of the changes encourages institutions to be more conscious of their responses to student markets and to think more about the effectiveness of their provision through the encouragement of student throughput and completions. The second change enables institutions to make explicit decisions about the best use of the funds available to them, and thus to be more flexible and responsive, and also to be more efficient in the use of funds. It is no coincidence that these changes have been made during a period when governments have constrained, and in some cases reduced, the level of public funding available to higher education.

In parallel with changes in the ways of allocating public funds, universities have been encouraged to raise funds from private sources. Sometimes this has been through their own entrepreneurial behavior - with government relaxing the rules over how such income can be spent. In other cases, governments have expected, or even required, institutions to raise private funds by making charges to their students - partly as a means of increasing private funds for the system, and partly based on a philosophy that the 'user should pay' at least a proportion of the costs - for reasons of equity and enhanced responsibility.

Accountability. This component of the change in government - university relations complements the other two and has arisen from a public concern that universities should be able to demonstrate that they make good use of the (large) amounts of public money which they consume. The concepts of accountability have developed in two ways.

The first reflects the increased emphasis on the outputs in terms of graduating students. The moves to link funding to numbers of students imply that institutions must be able to establish not only that they do educate the students for which they are funded,

but also that the education is of adequate quality - or at least, that the institutions themselves have mechanisms designed to ensure that it is of adequate quality.

The second concept of accountability reflects government concern about the ways in which public funds are being used. For the actual use made of public funds, the trends are to move to a system of ex-post audit of expenditure rather than an ex-ante approval of it. The primary purpose of such audits is to ensure propriety in the use of public funds and for government to be forewarned of possible future financial difficulties in institutions.

But governments are also increasingly interested in the efficiency with which public funds are used, allocating those funds on the basis of outputs provides a simple mechanism to apply efficiency pressures to the system - simply by reducing the 'unit of resource' that government pays for each student. The allocation of the funds as a single block enables each institution to determine for itself how best to respond to such efficiency pressures (by setting its priorities for programs and activities and the priorities for types of expenditure).

Implications for Governance

The previous two sections outlined the main changes in the environment within which universities operate. These changes require responses by the universities themselves, not least in their governance and management arrangements. There are four main areas of change in governance observed across many higher education systems. These are outlined below and developed in part B.

A recognition of the need to set a clear **strategic direction** for the institution as a whole. Of course there will always be a (very) small number of internationally renowned universities which need to do little more than recruit and retain top academics and then leave them to develop their own work. For all other institutions that is not enough, and the impact of the external changes outlined above means that their success - and in some cases their survival - depends on having a clear view about the type of institution they are striving to be.

The development of plans and their associated budgets in order to give substance to the strategic direction. The adaptation to the circumstances of higher education of corporate and operational planning processes has been a significant change in governance in universities; the intention has been to ensure coherence and consistency between activities and to provide a means of setting priorities and evaluating success.

The development of **devolved governance mechanisms at the departmental (or unit) level**. The purpose is to implement plans in an effective way, primarily through devolving power and responsibility to departmental units within the university and then holding those units accountable for successful delivery of the plans (and budgets).

The development of the **governance processes** themselves, covering the roles and responsibilities of senior posts and the decision making arrangements.

Governance and Management at the Institutional Level

Strategic Direction: In response to the external changes noted in part A, universities increasingly recognize that they need to be explicit about their overall future direction: simply allowing their academics to follow their own interests and inclinations with no reference to the outside world - a supply driven approach - is no longer adequate. Each institution needs to make explicit choices, not least to provide a framework within which individual academic units can produce their own plans.

The process of setting a strategic direction requires governance arrangements, which ensure that the result is realistic in terms of the institution's ability and capacity, but is also acceptable to most members of the broad academic community who will need to implement it. The use of a governing board, usually comprising a majority of people external to the university, is often helpful in supplying an external perspective and validation for this strategy setting process.

Given the range of interests within a university, setting a strategic direction will always be a question of balance. The difference in recent developments is that each balance is now more **explicit**, and that once set there is an expectation, if not a requirement, that every academic unit will pursue this balance in their own activities. For many institutions, such an approach to strategy is very different from the more laissez-faire approach that had previously characterized universities. The following are six examples of strategic balances that increasingly need to be explicit.

The strategic choice of **breadth versus depth** in the curriculum made available at undergraduate level concerns the extent to which students can study a range of related subjects to provide a broad base for their future careers, rather than being only able to study perhaps only one or two subjects in great depth. The general trend appears to be toward the former and away from the latter – arguably because it provides a better grounding for a world in which labor market requirements will continue to change rapidly. One aspect of this balance concerns the extent to which the curriculum is of an applied and perhaps vocational nature, as opposed to one which is more purely subject (and theory) based.

Similarly, within the undergraduate (and graduate) programs, universities have to make strategic choices about **the range of topics** that they offer. Only the very largest universities are still able to be comprehensive in any classical sense, and, as new subjects emerge, the ranges become virtually impossible even for them. Clearly such strategic choices need to be made in the light of the capacity of the institution to provide the topics, but, equally clearly, the demand from potential students is also an important factor in making these choices. This strategic choice will be influenced by the extent to which the institution wishes to be one which seeks to adapt and develop to external changes, rather than one that aims to remain more traditional in its approach.

A related choice concerns the **types of student market** for which the university seeks to provide. As an example, in some countries, there has been a dramatic growth in

the demand for part-time (and now distance) provision. To some extent, this reflects the (growing) demand from adults for professional and updating courses in recognition of the need to retrain and refresh in rapidly changing economies. Some universities explicitly decide not to address this type of demand, others adjust their arrangements specifically to do so; because such adjustments are usually significant, they require an explicit strategic decision.

A strategic choice which is very recent concerns the extent to which a university should develop its own material for teaching as opposed to making use of material developed by others. This new choice is the result of the increasing globalization of higher education, in part due to the facility offered by new technology. As more very high quality material becomes readily available – for example via the Web - so more universities will need to make an explicit strategic choice about whether they wish to be a **developers and/or deliverers** of academic content.

For **research**, a fundamental strategic choice concerns the extent to which the university should engage in research (as opposed to undertaking the 'scholarship' work needed by all academics to keep their teaching fresh). Research is expensive and rarely do the external funds provided for it cover its full costs (most of which consists of the time of academic staff). There is a natural tendency for most academics to wish to undertake research; the strategic decision for the university is whether that is appropriate (and affordable) for the institution. Even if it is decided that undertaking some research is appropriate, there remains the strategic choice about the balance of effort and resources to be devoted to research activities as opposed to teaching.

A wider question embracing much of the above concerns the role which the institution wishes to play within its **geographical area** – and how extensive it considers this geographical area to be: local, regional, national, international? The strategic decision will have major implications not only for the teaching and research activities of the university, but also for its relations with its neighboring institutions (e.g. the extent of collaboration, joint-working, or even merger) and with its local industries - however "local" is defined.

When stated as above, it seems obvious that each of these six strategic choices needs to be made, and most universities would readily be able to explain their own strategic balance on them – though usually as a post-hoc observation, rather than as a pre-hoc plan. What is new is the recognition that these strategic balances need to be consciously and explicitly determined - and that they may need to be changed in the light of new external changes (again explicitly). But, equally important, another new factor is that, once made, the resulting strategic direction needs to pervade all subsequent activities and decisions within the institution. The growing recognition of this last point is relatively new – and is often difficult to operationalize: how can such strategic decisions be made to pervade the whole institution. This is the subject of the next section.

Development of Plans and Budgets

It is not enough, of course, simply to set a strategic direction, it then needs to be converted to actions. Universities have been developing their internal governance and management arrangements to maximize their chances of successful implementation. To this end, there has been considerable development of the concept of academic (and other) planning and budgeting as a process, which enables decisions to be made consistent with the university's strategy.

There have been four main developments. The first reflects the recognition that it is **activities (with their outputs) that need to be planned and resourced** and not simply inputs. In many countries, this is a major change in that planning had hitherto been primarily concerned with changes in academic and other staff numbers and posts, rather than with the activities to be undertaken (e.g. the provision of courses), for which staffing is one resource consequence. It has been a major change for many institutions to move away from thinking primarily about inputs to thinking primarily about activities and outputs.

The second development arises from the consequential **need to be able to estimate all the resources required to undertake any given activity**; this can be very difficult and it is only relatively recently that it has been undertaken properly even in the most sophisticated universities. The need is to estimate the **full** costs of, say, an undergraduate program or a research project, including not only the costs of the academic staff directly involved, but also the costs of the various types of support facilities that the activity requires (e.g. support staff, buildings, utilities, management overheads). This can lead to tensions within the institution – especially when it can be shown that the real costs of an activity exceed the income associated with it, despite initial beliefs to the contrary (e.g. for a research project).

Of course, good governance recognizes that the provision of cross-subsidies will be an integral part of any coherent strategy, despite occasional resistance from those expected to make the subsidy. Planning and budgeting processes enable explicit decisions to be made about the priorities for the use of the institution's resources, and budgetary allocations do not need to (and often should not) simply follow the distribution of income earned - even where that itself is known. Thus, using estimates of full costs and, where appropriate, income associated with each activity (or unit), the third development is of **decision making processes that agree plans and make resource allocations** based on the institution's strategic priorities. The mechanism brings together academic plans with their full resource requirements. The 'culture' of planning and budgeting is one which has sometimes been difficult to establish, but there is now a clear recognition of its value and importance to a university.

The fourth development stems from **the need for flexibility in the use of resources within the university to enable it to adapt and respond successfully** to external changes such as those set out in Part A above. At the institutional level, this mirrors the national trend of moving away from line item budgeting to the provision of

public funds as a single block. Within institutions there is a growing recognition that cash is a useful common denominator for planning and that maximum flexibility is best provided by expressing the budgets for plans in cash terms and allowing flexibility for the cash to be spent in whatever way best matches the plan requirements. Many institutions stop short of this (usually by keeping staff costs separate from other costs), but there is a clear trend towards unrestricted movement of funds between budget headings.

There are several **managerial consequences** of these developments. First, the developments encourage a more flexible and imaginative use of resources (for example ways of using premises more intensively over the day, the week, or the year). Second, they encourage more attention to be paid to ways in which outputs can be increased without corresponding increases in inputs (thus leading to increases in efficiency). Third, they can provide a counter-force to any inertia which might otherwise resist change; in particular they can lead to questioning whether long-standing activities should be stopped if it is clear that they no longer contribute to the strategic direction of the institution - it is well known that it is much more difficult to stop doing something in a university than it is to start something. Fourth, the developments throw into sharp relief how weak the types of 'market' information are, which would be helpful to assist with the development of plans for the future.

Finally, the developments have major implications for the management of **central support services** within the university. An important trend has been the growing recognition that the main purpose of the central services is to support the academic activities (in a few institutions the belief has even been the other way round!). For support services, what is important for **their** planning is that they should undertake and develop their activities in those ways which best meet the needs of their 'customers' – usually the academic departments and units. This recognition has led to managerial initiatives to streamline, re-engineer and reform many of the administrative activities – and in some cases has even led to them being sourced from outside the institution.

Governance at the Departmental Level

To complement the above changes at institutional level, there have been important developments in governance arrangements below the institutional level. The main principle of governance behind these changes has been that **decision making and responsibilities should be delegated to the lowest practical level**, which can either be the faculty (or school) or the department. Terminology varies, but for the purposes of this paper, we refer to the faculty level as groups of departments and to the head as dean, but the same points apply to the departmental level too.

The principle of delegation of authority has been a general trend in the corporate sector over many years; it stems from the belief that those closest to the action are in the best position to make decisions and to implement them. However, it is essential that their decisions are made within a clear overall strategic framework developed for the institution as a whole, and that individuals with the delegated authority are held accountable for the results of exercising that authority. Such delegation empowers individuals at the lower levels and provides greater flexibility and the capacity to make

fast changes should circumstances require. It is now generally regarded as good management practice.

The current picture in universities shows varying **degrees of delegation**; there are still many that delegate few responsibilities to the faculty or departmental level, but the trend is certainly to increase it. Most institutions operate at one of five different levels of delegation, the lightest of which is an arrangement in which the faculties or departments only have responsibility for the use of small cash budgets (e.g. for items such as paper, field trips, expenses). Increasing levels of delegation comprise:

a. responsibility for all direct costs apart from those of academic staff
b. responsibility for all direct costs including those of academic staff
c. nominal charging of faculties (or departments) for the use of various central services (e.g. space)
d. real charging for the use of central services (with or without the facility to buy services from outside)

Most institutions which operate with delegated arrangements do so at level *a* or *b* – although for those operating at level *b* the center often retains the right to approve the creation and/or filling of posts, even vacancies created by a departure. An advantage of charging faculties or departments for central services (levels *c* or *d*) is that the central services need to be more conscious of the 'service' nature of their role because their 'customers' are now aware of the costs of them. Operating at level *d* has resulted in many complications if it is taken to extremes - although there are some administrative functions for which it makes good sense to delegate responsibility direct to faculties or departments. Charging for the occupation of space has proved to be an effective device for reducing demands for space.

In any delegated arrangement, the faculty or department (and its dean/head in particular) becomes responsible for preparing plans and the associated bids for resources. The responsibility rests with the dean/head also for ensuring that the plans, once agreed, are successfully implemented and that the budgets are adhered to. For the dean/head to be held accountable in that way, there are three components of a delegated system that have proved to be particularly important.

The first concerns the changed **role of the dean (and/or head of department)**. In effect, an essential part of the role of the dean (or head) is now that of a manager. This means that deans need to be selected for the post in a way, which ensures that they have the appropriate skills and attitudes for the required managerial tasks and that they fully recognize what it means to exercise managerial responsibilities. This implies that to select deans through an election process is unlikely to be appropriate; the same applies to the post of president/rector (see next section).

The second component of a delegated system is a mechanism by which **the individual members of the department are themselves held accountable** for their own performance. The trend here is toward some form of 'performance appraisal' process,

although because of the sensitivities involved, such processes normally start from a concern for staff development. The process examines how an individual has used his/her time over, say, the previous year and with what results and outputs. In some institutions, this had led to revealing questions about what is meant by "private" work, whether the concept of "private" work is valid for academics whose employment is intended to be full time and to whom does any resulting income belong. So far, only a few appraisal systems have been linked to pay -- they are almost invariably so linked outside the higher education sector.

The third important component of a delegated system is **good management information**. External information both about changing markets (labor markets and students) and about the activities of other institutions is important for planning purposes; internal information about the cost of activities is also important for planning. Equally vital is information which monitors both expenditure and the implementation of plans; this is needed to provide feedback and to evaluate results, but it is also needed in order to keep track of progress during the year so that corrective action can be taken if something appears to be going wrong. The development of a good management information system requires considerable analysis about the aims of the university and needs to be developed as part of the overall management of the institution.

It might be considered ironic that a delegated approach also **requires a strong center** to work effectively. After setting institution-wide priorities, deciding on plans, and allocating budgets, the most crucial role for the center is to monitor the performance and the expenditure of faculties or departments as a check to safeguard the interests of the institution as a whole. If events appear to be going too far away from agreed plans and budgets, the center needs to know and to be able to intervene before it is too late. Experience shows that this is a vital part of a delegated system; there are cautionary tales of universities that have changed to a delegated approach, but without ensuring that the center has sufficient information (and control).

Governance Processes

The trends discussed in this paper also have implications for the ways in which a university exercises its governance and management processes. In particular, for the new world in which universities find themselves, it is important to operate with **decision making mechanisms** which are speedy, responsive, and flexible; decision making must be forward looking and not be constrained by the inertia of the status quo, by history, or by the interests of particular groups.

The most important decision making machinery is that concerned with the planning and resource allocation process. Experience shows the benefit of this being both top-down and bottom-up for it to be effective: initial strategic guidance from the top followed by the production of plan proposals and budgets, in the light of that guidance, for the bottom. In deciding on priorities and plans, the decision making process must be able to make difficult decisions in the interests of the university as a whole, even if there are some who would be disadvantaged by such decisions. Many universities have found this difficult to do, but there is a growing (albeit slowly) recognition that the interests of

the whole institution must take precedence over the interests of any one part; in effect this is real collegiality in a corporate sense.

The **roles of committees** are changing too; clarity is needed between committees which are advisory (and if so, to whom), committees which are consultative, those that are part of communication arrangements and those which are decision-making. It is particularly important in settling terms of reference for decision-making committees to ensure they do not undermine or obscure the responsibilities and accountabilities of individuals. If an individual is responsible for a function, then he/she must be able to exercise and that responsibility and be held accountable for the results; this would not be realistic (or fair) if a committee could make decisions affecting that responsibility.

Further, given the general tendency for universities to create new committees, it is now becoming good practice to try to ensure that they have only a fixed term of existence and that each requires an explicit decision, say annually, to keep it in existence. A self-destruct mechanism, which abolishes, say, 20 percent of committees each year can be useful.

An important aspect of the governance process concerns **the role of the most senior posts**. While there is a range of terms for the top post (rector, vice chancellor, president, vice president, provost, principal) there is an increasing recognition that the most senior post is essentially a management one. Traditionally, at least outside the US, the top post has been primarily an academic leader; while it is still important that the post holder should have good academic credentials, it is increasingly recognized that the skills that are at least important are those of a chief executive. Thus, the rector (by whatever title) still needs to be a leader, but on a broader base, setting the overall vision for the institution in a way that ensures its acceptability and ownership among the staff, inculcating recognition of the need for change (when there is such a need), and ensuring that there are governance processes that will deliver the vision.

To do this successfully requires keen managerial skills, attitudes, and experience of the person who occupies the top position; it thus has implications for how the person should be selected. While it is important that the person should not be unacceptable to the staff (academic and non academic), it is increasingly recognized that, as its chief executive, he/she should be selected and appointed by the council or board that has ultimate authority for the whole institution. It is also increasingly recognized that in accepting the top post, the individual is making a career move and should not expect to return to a 'normal' academic post – and certainly not with his/her institution.

All the above applies, pari passu, to the **other senior managers** within the university – whose range of titles is even broader. The recognition of these posts as managerial ones is, naturally, a slower process than is the recognition for the top post – and is slowest for deans; but the trend certainly exists. In these arrangements, it is vital that those occupying the senior posts should operate as a team, working together for the corporate interests of the whole institution not just for their constituent part of it. Such

collegiality has sometimes been rather difficult to achieve - perhaps ironically for a sector, which prides itself on its collegiality.

In essence, all these trends could be caricatured as being moves **towards a managerialism** in which universities are becoming more business-like in the way they conduct themselves. This is broadly true, but it is not correct to think that this is contrary to the academic ethos to which universities aspire. There is no real contradiction; in fact, much of the managerial approach now growing in universities is often **more** consistent with the important parts of an academic ethos than the arrangements that existed hitherto.

In particular, the **collegiality** of decision making that puts the interests of the **whole** community ahead of the interests of any particular group is a more real collegiality than arrangements in which a group can veto a decision – on the basis that decisions have to be agreed by everyone. Further, a process of consultation and participation before any important decision is made is often more **democratic** than a process of considering matters in committees - the views of their members may not even be representative.

These trends represent a movement towards decision making by consent rather than by consensus. Universities looking to the future recognize that it is the former style of governance, which will enable them to face the future with confidence; the latter approach runs a real risk of keeping them in the past.

Annex 5:
Developing Internal Support for Quality and Relevance
by Elaine El-Khawas

Introduction

As systems of quality assurance have developed in most countries, initial attention typically has been directed to external mechanisms to ensure quality assurance. This has been the case in Brazil in recent years, with the introduction of strengthened accreditation procedures and a system of national exit examinations designed to measure the effectiveness of university programs.

Quality assurance initiatives have been controversial in many countries and sometimes have been modified or reversed after a short time. Even when national efforts become established, questions remain about whether they will lead to improvement within universities (Neave, 1998). Many observers contend that external requirements create a compliance mentality within universities, with little or no impact on educational programs. Others argue that external mechanisms alone are not enough; they need to be balanced by changes in the culture of universities, both to direct more attention to teaching and learning and to develop stronger internal procedures for program review and improvement (Middlehurst and Woodhouse, 1995).

In Brazil, accreditation and quality assurance responsibilities have been shared by the Secretariat for Higher Education (SESU) and the National Council for Education (CNE), as the principal part of the National Evaluation System for Higher Education. A major achievement with respect to quality assurance has been the establishment of the Exame National de Cursos, an evaluation instrument for institutional performance. Despite this measures and increased legislative leeway, the external evaluation system has (a) yet to develop a comprehensive and appropriate system of academic standards to develop, and (b) been preoccupied with the quasi-judicial regulation of the private higher education system (See Schwartzman, Brazilian Higher Education: the Stakeholders pp.4-5). A number of complicated interests intersect in this process, and the result is that the assurance of academic quality may get pushed to the background. This argues for developing greater internal support for quality assurance. This should be done while remaining aware of the intricacies and challenges of regulating a system with several types and level of quality of institutions, each with a particular set of concerns and interests.

Higher Education Institutions by Type, 1996

Type of Institution	*Number*	*Enrollment*	*Faculty*
Universities	**136**	**1,209,400**	**102,685**
Federal	39	373,880	40,492
State	27	204,819	22,911
Municipal	6	47,432	3,135
Private	64	583,269	36,147
Multiple-Faculty Facilities	**143**	**245,029**	**15,725**
Public	11	8,681	821
Private	132	236,348	14,904
Single-Faculty Facilities	**643**	**414,100**	**29,910**
Public	128	100,615	7,307
Private	51	313,485	22,603
Total	**922**	**1,868,529**[1]	**148,320**

Source: MEC/INEP/SEEC1997.

A key issue, crucial to effective policy implementation, is whether higher education institutions have the internal capacity to respond appropriately to new pressures for quality improvement. Thus, if universities are to make good use of examination scores, accreditation visits, and self-evaluations, they must have the skills and resources to examine their programs critically and to know how to improve them. Put differently, the issue is whether capacity-building is needed within higher education institutions to ensure that the new quality assurance initiatives will result in change (World Bank, 1994).

Based on recent policy actions in a range of countries, many governments believe that universities need stronger internal capacity for change. In Europe, most governments now expect comprehensive self-studies by universities. In Mexico, the government expects the self-studies to lead to detailed plans for institutional development. Australia has set up national agencies to spur internal curricular improvement. New proposals in the United Kingdom would significantly increase attention to the teaching skills of academic staff members.

It is likely that Brazilian universities have weak internal procedures for curriculum review and improvement. The system's reliance on nationally developed curricula, the strength of academic tradition in many universities, the wide range in the size of institutions, and in the qualifications of teaching staff (Schwartzman and Balbachevsky, 1996) all suggest that there is limited capacity within universities for undertaking significant program review and improvement. About 16 percent of current faculty hold Ph.D's, for example.

[1] This figure does not include graduate students, who numbered approximately 67,000 in 1996 according to MEC. IBGE figures for enrollment in 1996, which are based on its national household survey, show 1,784,000 undergraduates and 131,393 graduate students. The discrepancy of 4.4% in undergraduates may be due to the difference between nominal and actual enrollment. The discrepancy of 97% in graduate figures may be due to survey respondents in short (specialization) courses reporting themselves as graduate students.

To support its national programs for quality assurance, the Brazilian government should consider taking steps to balance external quality assurance with actions to strengthen the capacity for quality improvement inside the universities. Such initiatives could serve multiple purposes: first, to support accreditation and other external quality assurance efforts; second, to strengthen or introduce university procedures for both quality improvement and curriculum renewal; and, third, to increase the amount of attention given to effective teaching and learning.

The accreditation and reaccreditation process, as it becomes fully established, will depend on the ability of all universities to use results from self-evaluations and exit examinations to identify and carry out needed changes in their programs. The accreditation reviews will, themselves, depend on identifying (or developing) a sufficient number of academics with the expertise and credibility to conduct reviews.

A stronger internal capacity is also needed to spur innovation and improvement in university programs. Substantial dropout rates and problems of excessive time to program completion are indirect indicators of a broad need for curriculum revision and updating, probably also for changes to improve the relevance of courses and programs to emerging needs in the Brazilian economy. As enrollments grow in the near future, the experience of other countries suggests that all Brazilian universities will face greater pressure to introduce new courses and to improve teaching if they are to achieve satisfactory outcomes for students (OECD, 1998). All teaching staff—senior professors, often preoccupied with research and other professional obligations; instructors who have heavy teaching responsibilities; and those who teach part-time—will need to assess how well their courses are working as well as consider how to improve them.

Designing an initiative to build capacity for quality improvement within universities requires several decisions. Intervention efforts could focus on individual academics or courses, or on entire degree programs or disciplines. Efforts could be directed uniformly to all institutions, to certain universities or types of universities, or to universities within certain regions.

This paper review approach is designed to offer internal support for quality improvement that may be relevant for Brazilian higher education. Decisions need to be appropriate to circumstances within each country and to the government's broader objectives, but recent precedents in other countries offers experience that could be adapted to the Brazilian context.

Strategies for Internal Quality Improvement

In most countries, traditional universities have derived their core identities and reputation from research and scholarship, and consequently have given limited attention to teaching strategies or to curriculum review. Most academics have gained their knowledge of teaching or curriculum issues indirectly, either from their doctoral training or simply through working within their academic department (Green, 1997). Relatively few university teachers, in any country, have expertise on teaching effectiveness, program evaluation, or curriculum development.

To strengthen institutional capacity for quality improvement, some governments have issued mandates that require greater attention to teaching and learning. Others have adopted a different model, using incentive funding and technical assistance to universities. As in other spheres, the choice is to use a carrot or a stick, or some combination of the two.

In the US, a number of state governments have recently imposed quite specific mandates to improve the quality of undergraduate education, including requirements that senior professors at state universities teach first-year students or that professors get pay raises only if they have a full teaching load. Other US states have required state universities to monitor their performance on several indicators and to report their results publicly. In the United Kingdom, the government has required, as part of its teaching assessments, that some instructors be directly observed in the classroom by external visitors. Under a recent proposal, the UK may require academic staff members to submit evidence of effective teaching or participate in obligatory training programs on a regular basis (THES, Sept. 11 1998; Sept. 25, 1998).

Experience over the last decade suggests that external mandates to spur internal quality improvement have had limited results (Moses, 1995; Harmon, 1998; El-Khawas, 1998). Some studies have found that teaching is given more attention today and that institutions have changed many internal procedures because of external mandates (Banta, 1993; Brennan, Frederiks, and Shah, 1997), but no general evidence has yet emerged to show improvement in student progress and achievement.

In this context, it is useful to consider the experience of some countries that have used incentive approaches, based on competitive funds for quality improvement. In 1990, Sweden set up a national agency to operate a competitive grant program for projects designed to improve undergraduate education. Australia also has had substantial experience with the incentive grant model; two different agencies have funded efforts to improve teaching and learning at its universities. While the programs in Sweden and Australia differ in many details, both follow an incentive model. The general structure is a competitive grant mechanism, in which proposals aimed at fostering increased quality of teaching and learning are submitted in accordance with program guidelines and priorities. Then, following procedures to obtain peer ratings and review, the agency makes a limited number of grants annually for the best proposals.

The discussion that follows will review these two models in some detail, with brief comments about relevant experience in the US and other countries. To facilitate this review, the discussion is organized in terms of different components of the Swedish and Australian programs. The core program–focused on institutional quality improvement—is described first, followed by attention to other components.

Grants for Quality Improvement

These programs are designed to fund substantial projects that universities have proposed as ways to strengthen the quality, effectiveness, and relevance of their courses or academic programs. Projects may involve a new approach to introductory-level courses or a major

redesign of an entire course program. They may propose different examination methods, new teaching strategies, or other improvements likely to have significant impact.

Australia's Committee for the Advancement of University Teaching (CAUT) took this approach, operating a competitive fund in which grants were awarded to the best proposals submitted each year. CAUT supported many projects "aimed at improving the range and quality of approaches to teaching and learning" (Linke, 1995). Its successor agency, the Committee for University Teaching and Staff Development, operates a similar program, especially encouraging proposals that will "lead to practical advances in teaching, learning and/or assessment." Sweden's Council for the Renewal of Undergraduate Education also operates this way, awarding improvement grants to academic departments on the basis of competitive proposals (Jalling and Carlsson, 1995).

This type of fund may have several subprograms. The Swedish Council has used its grant mechanism to fund targeted programs in environmental studies and in undergraduate mathematics education, as well as programs involving IT in teacher training and computer-assisted medical training. Programs could be targeted for curriculum improvement at certain types of institutions or could emphasize skills in program evaluation to improve institutional capability to conduct self-evaluations.

Grants for Innovation

A few governments offer a different model. In designing their grants program for quality improvement, they have given priority to imaginative and innovative approaches to improvement. The purpose is to give support to those institutions and academics that want to try a broader kind of change or tackle problems in large-scale, systemic ways. The Australian agency, CAUT, took part of this approach. It encouraged projects "likely to lead to significant improvements in the quality of student learning," and specifically excluded from its competitive grants program any submission that dealt only with curriculum development. The Open Society Fund has given funds to several institutions in Central Europe to support large-scale innovations, e.g., restructuring disciplines or diversifying undergraduate programs (Darvas, 1995). Denmark has established a Center designed to spur innovation in a specific area, technology-supported teaching.

The United States operates a grants program for innovative projects, the Fund for the Improvement of Post-Secondary Education. FIPSE, an agency of the national government, has had a small budget but has consistently supported institutional projects promising innovative approaches in support of two broad national objectives: to improve the quality of higher education and to increase access to education beyond high school (FIPSE 1998). Popular and well regarded, the Fund has operated for more than 25 years, typically awarding grants of about $50,000 to $100,000 to support many worthwhile innovations. It deserves credit, too, for fostering a high regard for innovation throughout US higher education.

Some US states have operated their own funds for innovation. In Ohio, a competitive grants program, Funds for Excellence, called for universities to propose major new initiatives to build excellence within their programs. In New Jersey, a Challenge Grant Program operated during the 1980s, in which the state made sizable awards ($1 million or

more over several years) that allowed several universities to implement major changes in institutional direction. One university redirected its entire curriculum to practical training linked with industry settings, while another university introduced an international component into all of its course programs.

Teaching Grants (to Individual Academics)

Australia currently sponsors a competition for National Teaching Development grants, in which individual academics are funded to carry out practical projects to increase their teaching effectiveness. Projects may involve developing new teaching tools or spurring wider use of effective teaching processes. Teams of academics can propose projects under this grant, including teams within and across institutions. Sweden's Teacher Exchange also supports individual academics. In operation since 1994, 100 Swedish academics each year have the opportunity to teach in a counterpart department in another country, with an academic from that department coming to Sweden.

Recognition and Award Programs

These programs, aimed at raising the status of teaching among academic staff members, recognize that the traditions and reward structures within higher education give strong weight to research and scholarship, thus creating a *disincentive* for academic staff members to give attention to teaching and curricular matters. To counter this bias, teaching awards have been established in a number of countries, sometimes within universities and sometimes as national programs. These approaches aim to give recognition to outstanding teachers and in doing so, to increase visibility and give higher status to good teaching.

In the early 1990s, Sweden established a program to honor and recognize outstanding teaching. It created a Society of Pedagogues, comprised of professors who have earned the high regard of their students and colleagues for teaching excellence. The society is designed to be prestigious, only a limited number of members are nominated for their record and reputation as teachers. They meet regularly to discuss issues in undergraduate education, they are also called upon as experts on teaching and learning matters, and are given special opportunities to speak and travel.

Australia has also sponsored a national program designed to raise the profile and status of good teaching. Under this program, one or two National Teaching Fellows were selected for recognition each year, and given financial support to prepare papers and give speeches on educational topics.

In the United States, many universities make annual awards for teaching excellence; a national program also exists, in which a professional association sponsors a *professor of the year* program that names both national and regional award recipients. Mexico has a major program that gives national recognition to outstanding members of the academic staff, but it is based primarily on research and scholarly excellence.

Programs for Professional Development

Under this approach, governments support programs in which academic staff members attend workshops, usually up to a week in length, designed to increase their subject-matter

knowledge or teaching skills. In the United States, one government agency supports seminars in the sciences, while another agency sponsors summer institutes for academics in the humanities. Workshops may be organized by national groups of scholars and professionals, each devoted to the issues relevant to their field.

These programs allow academics to gain new skills and to become more familiar with good teaching practices. Workshops can have specific purposes, for example, with one program for new faculty and another for established faculty. Programs may focus on specific topics, e.g., on teaching issues one year and, in another year, program evaluation.

As a variation, the Australian government sponsored training opportunities for many years for those members of academic staff who wished to upgrade their academic credentials, which were especially needed after the government mandated a large number of institutional mergers.

Commissioned Studies

In Australia, the objectives underlying the incentive grant programs were complemented by the agency's sponsorship of several commissioned studies on teaching and learning matters. These studies, one looking closely at the experiences of students during their first year of university study, another examining approaches that give greater recognition and rewards to good teaching, encouraged nationwide discussion on these important issues.

In Sweden, commissioned studies were also employed as a way to call attention to educational and curricular matters. The Swedish studies were organized as discipline-focused reviews. In mathematics, economics, and history, for example, small teams of well-regarded academics conducted studies that identified significant teaching developments in other countries.

Toward an Incentive Approach to Quality Improvement

Most of the precedents for internal quality improvement reviewed in this paper reflect a bias toward allowing universities to take responsibility for improving their academic programs. An underlying premise is that long-term results for quality improvement are best achieved by changing the *culture* within academic institutions. The government role is to spur a faster pace of change through necessary policy changes and, potentially too, through special funding that rewards those institutions that have well-planned proposals for improvement. Although the incentive models reviewed here have been developed in different national contexts, they offer policy tools that could be adapted to Brazil's circumstances.

The Brazilian government has already begun an important initiative to press for increased quality, effectiveness, and relevance in higher education. To move this agenda forward, the key recommendation of this paper is that current programs for quality improvement, which emphasize external requirements, be balanced by the introduction of some form of support for university-based initiatives to improve teaching, programs, and results for students.

Brazil should consider establishing a national fund or similar mechanism to direct a competitive grants program aimed at spurring internal quality improvement. The fund should be set up as a semi-independent agency, separate from the accreditation council, and given a mandate to conduct a long-term program in support of teaching and curriculum quality. Its agenda should be national in scope, but offer diverse programs adapted to different needs.

The major program of the fund should be directed to grants for quality improvement, awarded to universities to support substantial efforts aimed at improvement. This grants program would have several purposes, mainly to build institutional capability (i.e., structures, offices, or staff positions; procedures for reviewing programs and introducing changes in curriculum) as well as to help institutions develop evidence about effectiveness and to use that evidence as a source of program improvement. One option with this grant program is to emphasize innovation, a more ambitious effort than curriculum development alone.

Apart from this major focus, the fund might also operate a small grants program, supporting individual academics. One purpose is to offer opportunities for interested teachers to improve their teaching skills and to learn about good teaching. A second purpose of a small-grants program is longer-term: to increase the number of academics who have expertise on curriculum review and development and on the evaluation of academic programs. This part of the fund could support the upgrading of faculty credentials, possibly as an expansion of current government initiatives of this type. However, in designing this fund, several policy issues should be balanced: to what extent should resources be directed to upgrading the content knowledge of faculty through support for additional credentials? How much should be given, instead, to improving the teaching skills of current faculty?

For Brazil, these two components of the fund—quality improvement grants and small grants to individual academics—could be modified to serve specific purposes or to fit particular circumstances. Other components could also be added. So too, the fund's operations should be supported by other government policies that increase institutional flexibility in creating a culture of quality; this may include, for example, policies that allows faculty positions to be reallocated in accordance with emerging demands. Several other issues must be considered, especially the level of importance to be assigned to the fund. In both Sweden and Australia, incentive-funding programs were set up on a trial basis for about three years, then extended following a good result. Sweden's Council saw its budget begin quite small, then double, and double again as it established a good track record. In Australia, CAUT operated as a low-profile fund in the context of a much more high-profile government initiative, the Committee on Quality Assurance.

A major decision in designing the fund involves how the grants program would be structured. One option is to develop a thematic focus, possibly with several areas for priority attention, and invite all institutions to submit proposals that respond to these priorities. Proposals could be invited for projects to reduce dropout rates or to introduce new courses in strategically important subjects.

Another option is to set up separate competitions for different types of institutions, e.g., with separate programs for universities and for university centers, or with one program for federal and state institutions and another for private institutions. In view of the geographic size and regional diversity in Brazil, the fund might support the development of collaborative networks to work together on quality improvement. The fund might, for example, give a grant to a network of several universities within a region or to a cluster of small private institutions. It might encourage proposals from professional associations wishing to restructure an entire course program. A set of high-quality universities may wish to propose a collaborative effort.

Brazil's future depends on a stronger system of higher education, able to offer effective teaching and relevant, well-designed academic programs in line with the needs of a growing economy. Improving the current system depends importantly on increasing the voice and presence of the many academics, students, and managers in the universities who would genuinely like to support an effort to improve their institutions (Schwartzman, 1998).

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Annex 6:
Accommodating the Growing Demand for Higher Education in Brazil: A Role for the Federal Universities?
by Arthur Hauptman

Summary
Brazil, like many other countries in the world, will face a rapid growth in the demand for higher education over the next decade and beyond. This increase in demand will flow from increased numbers of secondary school graduates combined with economic and social pressures to increase the rate at which these graduates continue their education. At a minimum, demand for higher education in Brazil will grow by 500,000 students within the next decade, an increase of one-quarter over the current level of roughly 2 million students who now enroll in higher education. If college participation rates increase, however, demand for higher education could more than double over the next decade relative to current enrollments. It is predictable that students with lower family incomes will constitute a larger share of the new demand for higher education in Brazil than they do of current enrollments.

If the experience of other countries is any guide, the primary strategy for meeting this growth in demand in Brazil will and should be a diversification strategy that relies principally on the creation of distance learning programs and the expansion of enrollments at institutions that do not stress research in their mission. But Brazil should also consider the role of the federal universities in meeting some of this demand. In this regard, this report focuses on the following three questions:

What policies might be adopted so that some of the growth in demand is accommodated by the federal universities in Brazil within the constraint of existing public resources?

What could Brazil do to free up public resources currently provided to the federal universities to fund future growth in other sectors of higher education?

How can Brazil ensure that access to the federal universities is expanded for students with below average family incomes?

Two financing models for addressing these questions are examined in this report. *One model* would set tuition and allocate government funds to public institutions on the basis of cost recovery. Tuition would be based on a percentage of costs per student - less than half - and government allocations would make up most or all of the difference.

The other financing model would set tuition at public institutions as a percentage of GDP per capita or other general economic measure. Government funds would be allocated to institutions on the basis of a number of factors including the extent to which institutions helped to achieve national policies such as expanding access for disadvantaged students.

Using either of these financing models, Brazil should seek to coordinate its funding and tuition policies with the student aid programs rather than have these various policies work at cross purposes, as is often the case in other countries. A program of need-based grants should be established to help the most disadvantaged students and student loans should be expanded to help students at both public and private institutions pay the costs of tuition.

If Brazil is to be successful in meeting some of the growth in projected demand by expanding enrollments in the federal universities within the constraint of existing resources, it will have to be more strategic in addressing financing issues. This is the basic argument made in this report. A more strategic approach might include the following elements:

Federal policies governing the distribution of public funds to institutions, the setting of public sector tuition, and student aid should be tied together in a systematic way. In many countries, financing policies often work at cross purposes with each other, with student aid intended to improve access while institutional funding reinforces existing inequities in the distribution of resources. The existing financing structure can also often work against the goal of greater diversification. Brazil will be well served by developing a coordinated approach.

Funding for student aid should be expanded as a share of government funding for higher education. Currently student aid plays an almost non-existent role in the financing of higher education in Brazil. It would be helpful if policy makers in Brazil in the future explicitly consider the level of student aid relative to overall support for higher education.

Student aid policies should be designed to provide a safety net for the most disadvantaged students if tuition is imposed. Policy makers in Brazil may be guided by the fact that in most countries, there is not a direct correspondence between the growth in tuition and eligibility for student aid. As a result, increases in tuition often lead to reduced affordability for students from families with low and moderate incomes.

Overall tuition levels at public institutions should be set as a percentage of a general measure of ability to pay such as GDP per capita. If tuition were imposed at the federal universities and set at $1,500, roughly one-half of the GDP per capita in Brazil, the revenues generated would accommodate an additional 40,000 students, a 10 percent increase over current enrollments in the federal universities. The percentage of GDP per capita could vary to reflect institutional differences. Also, if tuition varies by field of study, that variation should be a function of national priorities and labor force needs more than cost differentials.

The mechanisms for the funding of institutions should be designed to encourage the achievement of cost efficiencies. A 10 percent improvement in productivity in the form of heavier teaching loads, larger class sizes, or higher degree completion rates also

would free up resources that would enable the federal universities to accommodate an additional 40,000 students within existing levels of public resources.

Institutions should be rewarded for addressing areas of high national priority rather than the government providing the most funding to institutions with the highest cost per student. In most countries, the funding of institutions is based on providing sufficient government funds in combination with student fees to pay for the costs of education. A strategic model would have governments establishing funding formulas that reflect the setting of priorities based on national and regional needs. In this vein, Brazil could provide its institutions with more funds for the economically disadvantaged students they enroll than for higher income students as a way of emphasizing the goal of improving access.

Projected Growth in Demand for Higher Education in Brazil

Brazil, like most other countries around the world, faces a rapid growth in demand for higher education over the next decade and beyond for the following two reasons:

First, the number of secondary school students increased by 70 percent between 1991 and 1997 and is currently increasing at the rate of 12 percent per year.[1] Even with no increase in secondary school completion rates, *the number of secondary school graduates will more than double over the next decade from the level of 1.1 million in the mid-1990s.*

Second, less than 10 percent of 18-24 year olds in Brazil currently continue their education beyond secondary school. This rate of college participation is at least several times lower than that of many industrialized countries.[2] However, the worldwide economic and social imperative to expand educational opportunities suggests that this figure will increase in Brazil over time. A recent survey, for example, indicates that as many as half of graduating Brazilian secondary school students aspire to higher education.

These two trends -- increased numbers of secondary school graduates combined with pressures to increase college participation rates -- are common to many countries around the world. They also serve to bracket the future demand for higher education in Brazil. At the low end of the range, with no increase in the rate of secondary school graduation or college participation, the projected increase in the number of high school graduates could result in an additional demand for higher education of roughly 500,000 students within a decade, an increase of 25 percent above the current levels of enrollment

[1] The source for all of the statistics on Brazil included in this report is Brazil: Higher Education Sector Assessment, prepared by World Bank staff.

[2] This comparison of college participation is deliberately written in approximate terms because of the imprecision in how these rates are calculated reported for different countries. These rates vary depending on a number of factors the relative levels of participation among traditional college age and older students, the extent to which vocational training occurs in the higher education sector, and whether the rates are reported on the basis of whether students ever attended or are currently attending a post-secondary program.

of about 2 million students. At the high end, if the college attendance of the new high school graduates were to rise closer to those in industrialized countries, the number of students aspiring to college a decade from now could easily more than double relative to current enrollment levels.

Projected Growth in Demand for Higher Education in Brazil

Enrollment in 1998 (estimated)	*1.9 million*
Projected Demand in 2008	
Low Estimate	*2.4 million*
(slowing in the growth of secondary school enrollments, no increase in the proportion of secondary school students who graduate, and no increase in college participation rates)	
High Estimate	*4.4 million*
(continued rapid growth in secondary school enrollments, increase in rate of secondary school graduation, and a doubling in college participation rates for all age groups)	

Source: Hauptman, 1999; World Bank data.

If the experience of other countries is any guide, it will also be the case that the characteristics of the students who will constitute the new demand for higher education in Brazil will be different from the characteristics of the students who currently enroll, at least with respect to their socioeconomic status. Of the students who recently graduated from Brazilian higher education institutions, almost half have family incomes that are at least twenty times the salary derived from the minimum wage. By contrast, one quarter of the finishing students have family incomes less than ten times the minimum wage salary.

The students who will constitute the new demand for higher education in Brazil are likely to have a lower income profile than those who are already enrolled for several reasons. Participation rates are already much higher for students from wealthier families so the growth in demand among these students is likely to be lower than for groups of students whose traditional college participation rates are lower. In addition, the growth in secondary school enrollments will be higher for students coming from families with lower incomes.

The capacity of the federal universities to accommodate this growth in demand

Whether adequate seats will be available to accommodate this projected growth in demand is a primary issue facing Brazil, as well as many other countries around the world. If the experience of other countries is any guide, much of the increase in demand

in Brazil will and should be accommodated through a diversification strategy that entails increased reliance on distance learning programs, community colleges, and comprehensive institutions which place a relatively low premium on the research function. Many observers of international higher education persuasively argue that this kind of diversification strategy makes a great deal of sense for countries that lack the resources and the traditions to establish and adequately maintain research universities.[3]

Nonetheless, Brazil should also consider how at least some of the increase in demand projected for the next decade could be accommodated in the federal universities. Of the 1.9 million students enrolled in Brazilian institutions of higher education in 1996, roughly 375 thousand were enrolled in one of 39 federal universities, representing about one-fifth of total enrollments. State universities enrolled 200,000 students in that year (one tenth of all enrollments) while private universities enrolled nearly 600,000 students (one-third of enrollments). All private institutions enrolled more than 1.1 million students in 1996, nearly three-fifths of all students enrolled in Brazilian higher education in that year.

Another perspective is to examine where enrollments have grown fastest over time. Enrollments grew by roughly 500 thousand students between 1980 and 1996, an increase of more than one-third. Federal institutions (predominantly universities) account for more than one-fifth of all enrollments, but accommodated only 15 percent of the growth in enrollments between 1980 and 1996. State institutions accommodated more than twice the growth as federal institutions between 1980 and 1996 even though they enrolled only one third as many students in 1980. Municipal institutions accommodated half as much growth as federal institutions though they enrolled only one-fifth as many students in 1980. In contrast, private institutions accounted for half of the growth between 1980 and 1996.

[3] The advantages of a diversification strategy are discussed in Chapter 2 of the World Bank. 1992. *Higher Education: The Lessons of Experience*. World Bank. These arguments are reinforced in Johnstone, D. Bruce. 1998. *The Financing and Management of Higher Education: A Status Report on Worldwide Reforms*. World Bank, Washington, D.C.

Growth in Brazilian Tertiary Enrollments, 1980 to 1996

	Enrollments (in thousands)						
Sector	**1980**	**1996**	**Enrollment Share 1980**	**Enrollment Share 1996**	**Change 1980-96**	**% Change 1980-96**	**Share of Change**
Federal	317	389	23%	21%	72	23%	15%
State	109	243	8%	13%	134	123%	27%
Municipal	66	103	5%	6%	37	56%	8%
Private	885	1133	64%	61%	248	28%	50%
Total	1377	1869	100%	100%	492	36%	100%

Source: MEC/INEP/SEEC 1997

The average cost per student at the federal universities was $14,500 in 1997, a figure that is high by international standards. The high cost per student at the federal universities helps to explain why most of the enrollment growth in Brazil over the past two decades has occurred at private institutions and at non-university public facilities. At these per student expenditure levels, it has been difficult in Brazil to accommodate very much growth in enrollments at the federally funded universities since it is so expensive to educate each student who attends. This is true in most countries around the world as the high costs per student at the most prestigious institutions effectively limits access to these institutions.

Access to the federal university system also has been limited by virtue of the tradition that public institutions in Brazil do not charge tuition. While this statement may appear contradictory - after all, the absence of tuition lowers financial barriers for poor students - one must also consider the effect of charging no tuition on the supply of seats. Tuition is a revenue source that increases the resources available to higher education. Not charging tuition means that the principal revenue source for institutions - government resources - cannot be spread more broadly because each student who does attend is fully subsidized.

Strategies for Expanding Access to Public Universities in Brazil

As is true around the world, Brazil has several policy options for increasing access to its federal universities to accommodate at least some of the projected increase in demand for higher education over the next decade and beyond. These options include: increasing government and private funding of public universities; reducing costs per student at public institutions through productivity improvements; and charging tuition at public universities.[4]

[4] Although federal universities are the focus of this analysis, the same arguments could be made in the case of the state and municipal universities as well.

Increasing Public and Private Funding. Total public spending for higher education equals 1.3 percent of GDP in Brazil, high by international standards especially when one considers how small a proportion of the population continues their education beyond the secondary level. This level of government commitment to funding higher education, in combination with the relatively high costs per students in the public university sector and the relatively low college participation rates, suggest a low level of productivity and/or high levels of quality of the education provided by the public universities. *Especially in light of the current economic situation in Brazil, these figures also suggest that it is unlikely to expect a large infusion of public funds for higher education.*

The private sector is another obvious potential revenue source that Brazil might rely on to increase resources for its public universities. Public colleges and universities around the world have come to rely increasingly on private resources as restrictions on government funding of higher education have become more pronounced. In most countries, these private resources often come in the form of more extensive entrepreneurship on the part of faculty and university-related commercial activities. In some countries, private resources are gained through philanthropic fundraising from alumni, foundations, and others. From whatever source, these private resources may lead to increased supply of seats to the extent that the additional revenues are devoted to the education and training of students rather than the conduct of research or paying for the administrative costs of the institution.

How many more students could be accommodated at the federal universities if public and private resources were increased? To the extent that the budget for the federal universities is $7 billion, resources would have to be increased by $700 million to allow enrollments to grow by 10 percent assuming no improvement in productivity.

Reducing Costs per Student and Improving Productivity. In the absence of the infusion of new public or private funds, another option for accommodating the future demand for higher education in Brazil is to reduce the costs per student at the federal universities. This reduction in unit costs (or an increase in productivity) could be achieved in a number of ways, and the issue of improving productivity ultimately is one that must be dealt with mostly at the institutional level.

In many important respects, however, the issue of increasing productivity at public universities relates to matters of public policy in the following context: governments can influence costs per student and the degree of productivity through the various policies they implement. If, for example, governments fund institutions on the basis of costs per student, then institutional officials will have an incentive to increase their budgets or to limit their enrollments, also thereby increasing their costs per student. If public funds for the general operating support of institutions are provided on the basis of the number of students enrolled, then there is an incentive to increase enrollments and possibly reduce costs per student. If some portion of funds is provided on the basis of the number of

students who graduate, then the rate at which students complete their academic program may rise and productivity in the form of higher completion rates would be improved.

Improvements in productivity also can yield benefits in the form of increased access to public universities. For example, a 10 percent increase in productivity achieved through more teaching by faculty, more students per course, higher completion rates and/or less time to degree would reduce costs per student at the federal universities from the current level of $14,500 to roughly $13,000 per student. At that level, the current federal budget outlay for federal universities could pay for an increase of 10 percent in enrollments - an additional 40,000 students - within current budget levels.

Charging Tuitions at Public Universities. A third option for increasing the resources available to public institutions is to institute or increase the tuition charged by them. This option is increasingly being used in countries around the world as a means for maintaining or increasing institutional budgets in the face of constraints on the future growth in government revenue sources. Instituting or increasing tuition most typically is justified on the basis that students should pay at least a portion of the economic benefits they derive from the education they receive in the form of enhanced incomes and expanded employment opportunities. A key component in deciding whether to charge or increase tuition should be making sure that the student aid programs are designed to reflect the higher charges that students must pay. Too often, countries increase tuition without sufficiently increasing student aid at the same time, with the result that higher tuition do lead to the feared result of reduced access for disadvantaged groups of students.

A decision to charge tuition at the federal universities in Brazil could have a significant impact on how they are financed. For example, if tuition at the federal universities were imposed and set at, say, $1,500 (roughly one-tenth of current costs per student and about one-half of GDP per capita), then federal universities could enroll another 40,000 students (a 10 percent increase over current levels) with no increase in government funding.

Policy Options for Increasing Enrollments at Federal Universities by 10 Percent (40,000 Students)

Policy Option	Budget/Cost Implications
Increasing public and private resources by 10 percent with no change in productivity and no tuition	$700 million in new resources
Setting tuition at federal universities at roughly one-half GDP per capita, with no change in productivity	Tuition of roughly $1,500
Achieving a 10 percent improvement in productivity through heavier teaching loads, larger class sizes, or higher degree completion rates	Cost per student reduced from $14,500 to $13,000

Source: Hauptman, 1999.

Two Models for Financing Federal Universities in the Future

For the federal universities to accommodate at least a portion of growth in demand for higher education within the constraint of no additional public resources, policy makers in Brazil may wish to consider the following two financing models:

- One financing model would be based on the principle of cost recovery. The underlying premise in this model is that the combination of government allocations and student fees will cover all or nearly all of university budgets.

- The other financing model flows more from meeting national priorities. Government allocations to institutions would be based on strategic criteria such as responding to emerging labor market needs. Tuition fees would be set as a proportion of a general measure of people's ability to pay such as GDP per capita, except in those cases where the government wants to encourage students to enter certain fields.

Either of these models would represent a significant improvement over the current financing structure in Brazil. Either would serve to rationalize the use of government funds and the setting of tuition into a more coherent whole than what currently exists. Each could be implemented within a fairly short time frame once policy decisions were made.

It is also the case that the models can be mixed to produce better results. Priority-based principles can be combined with cost recovery techniques in a variety of ways. Fees could be set as a percentage of median family income or GDP per capita within the framework of how these figures relate to the costs per student. Government allocations to

institutions could entail an assessment of costs per student, as well as reflecting labor force needs and national priorities. The following discussion further examines the specifics of each of these two financing models, and identifies the strengths and weaknesses of both approaches.

Cost Recovery. Over the past quarter century, most developed and developing countries around the world have moved toward a system of financing higher education that is based on the principle of cost recovery. Under a cost recovery approach, tuition fees are set as a proportion—typically less than half – of the educational cost per student. Most or all of the remaining costs per student then are covered by government funding.

Cost recovery represents a significant improvement over the process it replaced in most countries where government allocations are largely based on the relative political strength of institutions. Low or zero fees reflect the philosophy that higher education is a public good and therefore fails to reflect the private benefits college students receive in the form of higher incomes by virtue of their college attendance and graduation. Low fees may also lead to restricted access if they are combined with low levels of government support. Cost recovery is designed to address these problems by increasing tuition and fees to more nearly reflect the private benefits which students receive and by increasing the levels of resources devoted to higher education.

For all of its advantages over the more traditional financing approach to public higher education, however, cost recovery creates its own set of problems. For instance, cost recovery procedures tend to encourage institutions to raise funds privately and build these funds into their expenditure base as a means for increasing the revenues they receive from student fees. As a result, cost recovery creates incentives for institutions to increase their costs rather than moderate them. Similarly, setting fees as a percentage of costs per student may encourage institutions to restrict their enrollments – thereby increasing their costs per student – and thus possibly augmenting the public revenues they receive. In short, cost recovery procedures can lead to higher costs per student and less access.

Another criticism of cost recovery is that it tends to reinforce the inequities that already exist in a country's higher education structure. Under cost recovery, institutions with high levels of resources per student tend to receive the most funds, while traditionally under-resourced institutions continue to get shortchanged in the funding process. In that regard, cost recovery is more reactive than strategic in that it accepts financing vehicles as they are rather than providing strategic direction of where they should go.

A Priority-Based System. An alternative to cost recovery is a system that would allocate funds and set tuition on the basis of market needs and national priorities. Under such a system, government funds would be provided to universities on the basis of number of students enrolled weighted by their field of study according to national priorities such as labor market demand and other factors including priority student

characteristics. For example, if the government places a high priority on increasing the number of economically disadvantaged students attending the best universities, then it could provide all institutions with more funds for the students they enroll with those characteristics. A portion of government funds might also be distributed to universities on basis of the number of students they graduate, as long as adequate quality control procedures are instituted.

Under this model, tuition would be set as a matter of policy in relation to people's ability to pay for college based on available economic indices such as median family income or GDP per capita. This would move away for the cost recovery concept of using tuition as a vehicle for financing institutions and toward a philosophy that tuition should reflect the ability of a nation's or region's population to pay for higher education. An option under this model would allow individual universities periodically to negotiate with governments on how much they could charge per credit by field of study based on a combination of factors including costs by field of study, changing labor force needs, and student demand by field of study.

Setting tuition largely on the basis of the general ability of the population to pay addresses one of the principal difficulties with setting tuition on the basis of cost recovery, namely, that the costs of educating students may or may not correspond to students' and families' ability to pay a portion of those costs. The growth in salaries and the costs of maintaining facilities at universities may not correspond to other economic trends, with the result that these costs -- and tuition if they are set as a proportion of those costs -- may increase at a different rate over time than people's ability to pay those tuition.

Regardless of what procedure is used to establish tuition, it is important that public policies for financing for higher education be flexible enough to adapt to changing economic conditions. In the United States, the tendency has been for public sector tuition to increase most rapidly during economic recessions. This trend occurs because government revenues tend to fall during a recession. Tuition then increases more rapidly to help keep institutional budgets whole during these economic downturns. This means that tuition rises the fastest when students and their families can least afford to pay these increases. Countries should therefore consider building modest reserves during economic good times to relieve pressures to raise tuition during economic hard times. In the alternative, funds might be borrowed during bad times to moderate the need for tuition. These debts could then be repaid once economic conditions improve, financed in part by higher tuition.

The kind of arrangement described above would help ensure that tuition in the future would stay in line with the average ability of students and their families to pay for higher education, rather than growing along with the expense of providing that education, a figure which might or might not correspond to future students' ability to pay or being used to plug the gap created by bad economic conditions. Setting tuition as a percentage of GDP per capita or median family income also might facilitate efforts to link the

imposition of tuition with student aid. Students with incomes below the average or median might be eligible for grant assistance while better off students would borrow to meet their education costs.

A main argument for the priority-based model is that it provides the government with a policy mechanism to set policies strategically rather than reacting to what already exists and accepting existing financing patterns as a given. For example, if there is a high national priority to increase the number of teachers, then under this financing model the government can express that priority through financing mechanisms such as charging no tuition for students in education fields of study, allocating more government funds to education faculties, or providing loan forgiveness for students who become teachers. It is more difficult to achieve these priorities if one adheres strictly to a cost recovery format where costs per student are the dominant statistic. The priority-based approach also more easily allows market forces to operate within the framework of government policies than cost recovery.

A principal drawback of a priority-based approach is the difficulty that most governments have in setting priorities in a systematic way. The tendency in most countries is to list a series of worthy goals such as improving quality or expanding access without a plan for achieving these objectives. Countries typically are unwilling to prioritize among these often conflicting objectives – for example, should access be expanded if that entails a reduction in quality? Maintaining priorities once they are set is complicated by the fact that political power changes. The priorities established by one government will often be different from those of its successors. From the point of view of higher education, these political shifts can be detrimental to prudent planning. The other problem attached to a priority-based approach is the difficulty of predicting how economic and social conditions will change over time. For example, let's say that a country has a teacher shortage. That shortage condition may change by the time that policies for increasing the supply of teachers are put in place.

Moving Toward a More Systematic Approach: the Role of Student Financial Aid

In most countries, policies for allocating funds to institutions and setting tuition at public institutions are not linked systematically and often work at cross purposes to the student aid programs. For example, if the aid that students receive is not related to increases in the tuition they pay, then increases in tuition are likely to lead to reduced rates of college participation by students who require assistance. Similarly, if the government allocation process favors those institutions with a high cost structure and if an adequate student aid program is not in place, the likely result is less participation of lower income students at higher cost institutions. *For these reasons, it is critical to link the student aid programs with whatever procedure is used for setting tuition and allocating funds to institutions.*

Brazil currently has a relatively modest commitment to student aid. Apparently there is no national program of grant assistance and loans are available to small numbers of students attending private institutions. This financing pattern is at least in part a function of the fact that public institutions in Brazil do not charge tuition, thereby

reducing the perceived need for student aid. If public institutions begin charging tuition, however, the perceived and real need for an expanded commitment to student aid will dramatically increase.

To avoid the shortcomings with traditional higher education funding mechanisms, Brazil should consider moving to a more strategic model of financing higher education, one that seeks to link funding, tuition fees, and student aid policies with overall economic trends. Under this kind of approach, government policies for the funding of institutions, the setting of tuition fees at public institutions, and the provision of student aid would work in tandem rather than at cross purposes as is so often the case. To do this, the following issues should be considered as Brazil considers whether to charge tuition at public institutions and whether to expand its commitment to student aid.

Increasing Student Aid's Share of Government Funding for Higher Education. One means for ensuring that student aid, tuition, and allocation policies are linked is to have an explicit policy for the share of higher education funding to be devoted to student aid. Again, this is a discussion that typically does not occur in most countries as the proportion of government funds for higher education devoted to student aid is the residual result of a number of other decisions. Having such a discussion can help ensure greater coordination of policies. For example, a decision might be made to reduce government funds to universities as tuition is imposed, and that every time tuition levels are increased, a portion of the tuition increase could be devoted to student aid as a way of protecting the most disadvantaged students from the effects of the higher prices. The result of this set of policies would be that a greater share of government funding for higher education would be provided in the form of student aid.

Expanding this student aid commitment requires either increasing government funding for higher education or increasing the share of that funding devoted to student aid. In the current economic environment, however, expanding overall funding for higher education seems unlikely. Therefore, the best approach for expanding the commitment to student aid would be to increase the student aid share of government funding for higher education.

It is important to recognize that altering the proportion of government funds devoted to student aid does not necessarily mean that institutions will receive any less funding from the government than is now the case. If student aid may only be used for tuition expenses, then each dollar of student aid ultimately will find its way to an institution. To be sure, these funds probably will be distributed differently than how funds are distributed presently to institutions since student aid recipients are unlikely to attend in the same pattern as the existing distribution of government funds to institutions. But the same amount of funds will flow into institutional coffers (Two exceptions to this rule occur if aid is provided to students attending private institutions and when aid is available to pay for living expenses. In those cases, the total amount of government funds flowing directly or indirectly to public institutions will be less than is currently the case).

Vouchers versus Government Allocations to Universities for Student Aid. Governments can structure student aid programs in one of two basic ways. Under one aid mechanism, the government allocates funds to colleges and universities, which in turn provide awards to students based on criteria established by the government. The degree of autonomy institutions have in making awards varies from country to country under this kind of arrangement. Vouchers, the other basic form of student aid program structure, give students the power to choose where they go to school by allowing them to purchase a certain amount of higher education.

Administrative simplicity is the fundamental advantage of having an institution-based student aid structure. Having universities assume responsibility (and some of the administrative costs) for determining student eligibility according to government criteria is often simpler and cheaper than having the government assume major responsibility for determining an individual student's eligibility for aid. University officials also may be better prepared to judge the financial need of students than government officials who are more remote.

A fundamental drawback to administering student aid through university allocations, however, is that this structure provides little in the way of market-based incentives. By definition, universities under this structure provide aid to the students who enroll at that institution. In addition, a system of university-based allocations for student aid may be ill suited for providing student aid based on meeting national priorities. It is difficult to ensure that institutions will follow the priorities established by the government. Also, if the objective is to ensure an equitable distribution of aid to students from all regions of the country, university-based allocations are the wrong mechanism for doing so.

A voucher system is superior to institution-based ones in providing market-based incentives and in ensuring that national priorities are met. Vouchers also provide a degree of competition that university-based allocations do not provide. By the same token, the value of vouchers is limited when students have limited or no choice in where they go to school. That is, the more that students are instructed where to enroll, the less that a voucher system makes sense. Vouchers really only make sense in an environment where students can freely choose among institutions which have admitted them. In addition, vouchers typically entail much higher administrative costs than a university-based allocation approach.

Given the relative strengths and weaknesses of both university-based allocations and vouchers, Brazil may wish to consider a student aid structure that combines university allocations with vouchers to meet multiple national goals. Under this mixed approach, the primary funding of student aid could be provided through allocations to public institutions. At the same time, some aid could be provided in the form of vouchers to meet certain national needs. For example, if there is a desire to reward the best secondary school graduates, funds could be set aside for vouchers awarded to the top

students in each region of the country to pay for tuition (and perhaps living costs as well) at whatever institution they attend. Similarly, if there is a goal to have more students enter the field of teaching, a voucher for full tuition might be provided to good students who agree to become teachers.

The Possible Role of Loans. Loans increasingly have come to play a significant role in the financing of higher education in many countries around the world. Borrowing is particularly important in those instances where tuition is charged since it allows students to amortize the often high costs of instruction over an extended period of time. If Brazil decides to charge tuition at its federal universities, therefore, the role of loans in Brazil should become more pronounced. In the process of formulating an expanded role for loans, a number of issues will have to be addressed including: the source of capital, the administrative structure, the level of subsidy, and the method of repayment. Each of these important issues require discussion and answers that go beyond the scope of this brief report.

Conclusion

This report is intended to provide policy makers in Brazil with an overview of some of the issues involved in considering how to accommodate some of the growing demand for higher education at the federal universities within the limits of available public resources. The basic thrust of the argument made here is that Brazil should be more strategic in approaching this task than most countries have been.

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